NAVAL POSTGRADUATE SCHOOL Monterey, California



THESIS

THE 12-PHASE ACQUISITION PROCESS: A COMPARISON OF THEORY VS. PRACTICE

by

Christopher Lehner

June 2001

Thesis Advisor:
Associate Advisor:

E. Cory Yoder Mark E. Nissen

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20011116 163

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE June 2001	3. REPORT TYPE AND DATES COVERED Master's Thesis		
4. TITLE AND SUBTITLE: The 12-Phase Acquisition Process: A Comparison of Theory vs. Practice 6. AUTHOR(S) Lehner, Christopher				
7. PERFORMING ORGANIZATION NA Naval Postgraduate School Monterey, CA 93943-5000	8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING / MONITORING AGE N/A	ENCY NAME(S) AND A	ADDRESS(ES)	10. SPONSORING / MONITORING AGENCY REPORT NUMBER	

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

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Phases into its acquisition process to better acmeve its goals.				
14. SUBJECT TERMS 12-Phase Acquisition Process,	15. NUMBER OF PAGES 122			
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	
Unclassified	Unclassified	Unclassified	UL	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18 THIS PAGE INTENTIONALLY LEFT BLANK

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THE 12-PHASE ACQUISITION PROCESS: A COMPARISON OF THEORY VS. PRACTICE

Christopher Lehner
Major, United States Army
B.S., United States Military Academy, West Point, 1990

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL June 2001

Author:	Christopher Lehner
	,
Approved by:	
	E. Cory/Yoder, Thesis Advisor
	A. I. Comin
	Mark E. Nissen, Associate Advisor
	ALL
•	Kenneth J. Euske, Dean
	Graduate School of Business and Public Policy

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ABSTRACT

The 12-Phase Acquisition Process was developed by the faculty of the Graduate School of Business and Public Policy, Naval Postgraduate School (NPS), and is a cornerstone concept for every contracting class at NPS. The 12-Phases provide a distinct roadmap for the equipment user and a Contracting Officer to navigate the cycle to procure an equipment item. For this thesis, each phase in the 12-Phases is supplied with the pertinent elements (e.g., actions, analyses, events) primarily from the Federal Acquisition Regulation (FAR) Part 12 (Acquisition of Commercial Items) and the FAR Part 13 (Simplified Acquisition Procedures). Additionally, the thesis outlines and analyzes the acquisition process of 2nd Battalion, 1st Special Forces Group (A) using the 12-Phases. Results of the analysis reveal eight problems and shortcomings in the battalion's process. These problems hinder the battalion from achieving its goals of a best-price or best-value, minimum delay, detachment satisfying acquisition. Recommendations are made for the battalion to incorporate elements of the 12-Phases into its acquisition process to better achieve its goals.

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TABLE OF CONTENTS

I.	INT	RODUCTION	
	A.	PURPOSE	
	В.	BACKGROUND	
	C.	RESEARCH QUESTIONS	2
		1. Primary Question	2
		2. Subsidiary Questions	2
	D.	SCOPE, LIMITATIONS, AND ASSUMPTIONS	2
		1. Scope	2
		2. Limitations	
		3. Assumptions	3
	E.	METHODOLOGY	4
	F.	DEFINITIONS	4
	G.	ORGANIZATION OF STUDY	
	H.	BENEFITS OF STUDY	10
II.	THE	E 12-PHASE ACQUISITION PROCESS	. 11
11.	A.	INTRODUCTIONINTRODUCTION	11
	В.	A PHASE-BY-PHASE EXPLANATION (THE THEORY)	
	В.	1. Phase 1 (Mission Analysis)	
		2. Phase 2 (Determine the Needs; Lack of a Capability or	
		Opportunity)	13
		3. Phase 3 (Determine the Requirements of the Equipment)	14
		4. Phase 4 (Define & Describe the Requirements)	15
		5. Phase 5 (Acquisition Planning)	16
		6. Phase 6 (Solicitation Phase)	17
		7. Phase 7 (Evaluate the Equipment and Sources)	18
		8. Phase 8 (Negotiate with the Sources)	18
		9. Phase 9 (Award the Contract)	19
		10. Phase 10 (Administer the Contract)	20
		11. Phase 11 (Incorporate the Equipment into the Force)	20
		12. Phase 12 (Execute the Equipment Disposal Plan)	21
	C.	AN EXAMPLE OF THEORY PUT INTO PRACTICE	22
		1. Phase 1 (Mission Analysis)	22
		2. Phase 2 (Determine the Needs; Lack of a Capability or	an
		Opportunity)	
		3. Phase 3 (Determine the Requirements of the Equipment)	23
		4. Phase 4 (Define and Describe the Requirements)	25
		5. Phase 5 (Acquisition Planning)	27
	D.	ADVANTAGES & DISADVANTAGES OF THE 12-PHAS	SE
		ACQUISITION PROCESS	38
		1. Advantages	

		2.	Disadvantages	43
	E.	CH	APTER SUMMARY	44
III.	THI	E ACQ	UISITION PROCESS OF 2 ND BATTALION	45
	A.	INT	RODUCTION	45
	B.	AI	RODUCTIONPHASE EXPLANATION OF 2 ND BATTALION	
		AC	QUISITION PROCESS (THE PRACTICE)	45
		1.	Phase 1 (Mission Analysis)	47
		2.	Phase 2 (Determine the Needs/Requirements/Exact Equipme	ent
			Item)	49
		3.	Phase 3 (Evaluate the Exhibit 6 Form)	51
		4.	Phase 4 (Award & Administer the Contract)	53
		5.	Phase 5 (Integrate the Equipment into the Detachment)	53
	C.	PUF	RCHASING METHODS	54
		1.	Governmentwide Commercial Purchase Card (GPCP)	54
		2.	Unit Level Logistics System (ULLS)	55
		3.	DA Form 3953	56
	D.	CHA	APTER SUMMARY	57
IV.	ANA		OF 2 ND BATTALION'S PROCUREMENT PROCESS	
	A.	INT	RODUCTION	59 50
	В.	CON	MPARISON OF THE PROCESSES	50
		1.	Phase 1 - Mission Analysis (Item 1)	63
		2.	Phase 2 - Determine the Needs (Item 6)	63
		3.	Phase 2 - Determine the Needs (Item 7)	64
		4.	Phase 3 - Determine the Requirements (Item 8)	65
		5.	Phase 3 - Determine the Requirements (Item 9)	65
		6.	Phase 3 - Determine the Requirements (Item 10)	66
		7.	Phase 4 - Define the Requirements (Item 11)	66
		8.	Phase 4 - Define the Requirements (Item 12)	67
		9.	Phase 4 - Define the Requirements (Item 15)	67
		10.	Phase 5 - Acquisition Planning (Item 16)	67
	-	11.	Phase 5 - Acquisition Planning (Item 17)	68
		12.	Phase 5 - Acquisition Planning (Item 18)	69
		13.	Phase 6 - Solicitation Phase (Items 19 & 20)	70
		14.	Phase 7 - Evaluate the Equipment and Sources (Items 21, 22	&
			23)	70
		15.	Phase 8 - Negotiate with the Sources (Item 24)	71
		16.	Phase 8 - Negotiate with the Sources (Item 25)	71
		17.	Phase 9 - Award the Contract (Item 26)	71
		18.	Phase 9 - Award the Contract (Item 27)	72
		19.	Phase 10 - Administer the Contract (Item 28)	72
		20.	Phase 10 - Administer the Contract (Item 29)	72
		21.	Phase 11 - Incorporate the Equipment into the Force (Item 30)72
		22.	Phase 11 - Incorporate the Equipment into the Force (Item 31)73
		23.	Phase 11 - Incorporate the Equipment into the Force (Items 3	
			& 33)	73

		24.	Phase 12 - Execute the Equipment Disposal Plan (Item 34)	74
	C.	CHA	PTER SUMMARY	
V.	CO	CONCLUSIONS AND RECOMMENDATIONS		
	Α.		CLUSIONS	
	В.		OMMENDATIONS	
		1.	Consolidated List	79
		2.	Stand-Alone Needs Statement	
		3.	Requirements	81
		4.	Inclusion of a Contracting Officer	
		5.	Acquisition Plan	
		6.	Appropriate Purchase Method	83
		7.	Requirements Flow and Process Innovation	
		8.	Feedback Loops	
	C.		WERS TO RESEARCH QUESTIONS	
		1.	Primary Question	
		2.	Subsidiary Questions	
	D.	RECO	OMMENDATIONS FOR FURTHER STUDY	
APP	ENDIX	A. USS	SOCOM MNS	89
APP	ENDIX	B. QU	ESTIONNAIRE	91
			SEFUL MARKET RESEARCH WEB SITES AND CONTAC	
			TON	
LIST	r of R	EFERE	NCES	101
INIT	CTAT. D	ISTRIR	UTION LIST	103

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LIST OF FIGURES

Figure 1.	Thesis Organization (Source: Developed by Researcher).	9
Figure 2.	12-Phase Model (Source: Developed by Researcher).	12
Figure 3.	Initial LRNVD Requirements (Source: Developed by Researcher)	
Figure 4.	Revised LRNVD Requirements (Source: Developed by Researcher)	26
Figure 5.	2 nd Battalion's Acquisition Model	47

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LIST OF TABLES

Table 1.	Elements Providing a Best-Price or Best-Value Solution	40
Table 2.	Elements Providing Minimum Delay and Satisfaction	
Table 3.	Scorecard	
Table 5.	000100414	············

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I. INTRODUCTION

A. PURPOSE

This thesis analyzes *The 12-Phase Acquisition Process* and determines how its elements could be used to improve 2nd Battalion, 1st Special Forces Group's acquisition process. In doing so, this thesis applies the theory of *The 12-Phase Acquisition Process* to the practice of 2nd Battalion.

B. BACKGROUND

For each of the last three fiscal years 2nd Battalion, 1st Special Forces Group received approximately \$1,100,000 to train and sustain 15 Special Forces detachments and associated support personnel, 380 men total (Anderson, 2001). In turn, these trained and supported detachments deployed throughout the Pacific region and operated with host nation forces and indigenous populations to perform counter insurgency, counter drug, de-mining, direct action and special reconnaissance missions. The missions, terrain and climates that these detachments encountered were as diverse as the detachments' needs, which generated their equipment requirements.

Approximately 20% (\$220,000) of the battalion's funds each year are used to procure commercial items (CIs) and nondevelopmental items (NDIs) to satisfy this wide array of equipment requirements and sustain the battalion (Anderson, 2001). The Battalion Logistics Officer (S4) has oversight of these funds and is responsible to establish or maintain an effective acquisition process that should achieve these goals:

- Acquire the best-price or best-value item
- Minimize delays
- Keep the customers (the detachments) satisfied (FAP, n.d., pp. 5-6)

There are, however, elements (actions, analyses, and events) that are either not performed by 2^{nd} Battalion or could be modified that would better support these three goals.

This thesis provides a straightforward display of *The 12-Phase Acquisition Process*, tailored to the type of acquisitions conducted at 2nd Battalion's level, a review of 2nd Battalion's current acquisition process and an analysis of how the elements of *The 12-Phase Acquisition Process* can be applied to the practice of 2nd Battalion to better achieve the battalion's three goals.

C. RESEARCH QUESTIONS

1. Primary Question

How can *The 12-Phase Acquisition Process* improve 2nd Battalion, 1st Special Forces Group's acquisition process?

2. Subsidiary Questions

- What advantages and disadvantages are associated with *The 12-Phase Acquisition Process*?
- What is 2nd Battalion, 1st Special Forces Group's acquisition process for commercial and nondevelopmental items?
- What problems and shortcomings are associated with 2nd Battalion's acquisition process?
- How can the elements of the 12-Phase Acquisition Process be used to improve 2nd Battalion's acquisition process?

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS

1. Scope

This thesis only applies to the battalion's commercial and nondevelopmental acquisitions of non-expendable and durable mission equipment items1, whose total

¹ Items such as water filters, strobe lights, Ground Positioning Systems, extreme cold weather boots, etc.

acquisition price² is over \$2,500 and under \$100,000 in a fiscal year. Focusing on this category of mission equipment items is important, for this category comprises a significant portion of 2nd Battalion's acquisitions, there already exists an acquisition process for this category that can be readily evaluated, and 2nd Battalion stands to gain more from applying the theory of *The 12-Phase Acquisition Process* to this category.³

2. Limitations

Currently 2nd Battalion does not track definitive data that could show a pattern of best-price or best-value, schedule, or satisfaction problems with its acquisition process. However, the three S4s interviewed agree that there is room for improvement in these areas. Therefore, since there is no yardstick, the conclusions of this thesis cannot quantitatively show, but only qualitatively display, how elements of *The 12-Phase Acquisition Process* could improve 2nd Battalion's acquisition process.

3. Assumptions

The target audience for this thesis is 2nd Battalion. Therefore the level of acquisition knowledge of the reader is assumed to be minimal beyond the knowledge gained from the Governmentwide commercial purchase card (GCPC) training. In response to this, the thesis is written in basic acquisition terminology and incorporates only those concepts that will be helpful to 2nd Battalion's acquisitions.

² Total acquisition price is the price of a specific equipment item multiplied by the quantity that most likely will be purchased by all detachments in 2nd Battalion within a fiscal year.

³ Gains in the acquisition process goals could also be made by applying *The 12-Phase Acquisition Process* to the expendable item category, but the level of effort would not provide as big of a benefit.

E. METHODOLOGY

The acquisitions conducted at 2nd Battalion's level fall under the guidelines of the SAP. Each phase or shell in *The 12-Phase Acquisition Process* contains the pertinent elements (e.g., actions, analyses, events) for a SAP and additional elements that are not required under the FAR (e.g., Analysis of Alternatives, Acquisition Plan). These additional elements are included because, even if they are informally conducted, they can provide benefit to 2nd Battalion's process.

Once 2nd Battalion's acquisition process is established, the 12 phases are used to analyze each phase of the battalion's process. This approach reveals the elements of the 12-phases that can remedy the battalion's process to better support the battalion's three acquisition goals.

F. **DEFINITIONS**

Acquiline: This is the system available on every S4's and Resource Management Officer's desktop computer at Fort Lewis to electronically process the DA Form 3953 (Purchase Request and Commitment). The DOC at Fort Lewis has provided classes and lectures to use this system in hopes that the acquisition process from start to finish can become a paperless one.

Best-price: When choosing between the same item sold by different sources or different items that have equal characteristics (except price), the best-priced item is the one that is the least expensive of all.

Best-value: When choosing between items that have different characteristics (to include price), the best-value item is the one that provides the greatest overall benefit in response to the established requirements for the item.

Commercial Item (CI): A Commercial Item is any item evolving from or available in the commercial marketplace that will be available in time to satisfy the user requirement. They are any combination of items customarily combined and sold to the general public. (DAD, 2000, 2.5.3)

Directorate of Contracting (DOC): The contracting office located on most major military installations. The DOC is responsible to plan and execute the contracts in support of the installation and the post commands.

Economic purchase quantity: A discount provided by the manufacturer or vendor to the buyer when the buyer's order for an item is above a set quantity.

Force Modernization Officer: An additional duty assigned to a staff officer at the Special Forces battalion and group level. The Force Modernization Officer keeps abreast of and helps integrate new equipment procured by higher headquarters into the group and battalion.

Gold plating: Establishing requirements for a new equipment item that far exceed the actual need. These excess requirements can often cause a more expensive acquisition than an acquisition based on the realistic requirements.

Governmentwide Commercial Purchase Card (GCPC): a purchase card, similar in nature to a commercial credit card, issued to trained and authorized unit personnel to acquire and pay for supplies and services up to \$2,500.

Integrated Product Team (IPT): The Integrated Product Team is composed of representatives from all appropriate functional disciplines working together with the team leader to build successful and balanced programs, identify and resolve issues, and make

sound and timely recommendations to facilitate decision-making. There are three types of IPTs in the example provided in Chapter II: The Overarching IPT (OIPT) consists of the Battalion Commander (as the Team Leader), Executive Officer, Operations Officer, and S4. The OIPT focuses on strategic and tactical guidance, program assessment, and issue resolution. The Working Level IPT (WIPT) consists of the S4 as the team leader, selected members of the battalion staff and Special Forces detachment members, the Group Force Modernization Officer and a Contracting Officer from the DOC. The WIPT establishes an Acquisition Plan, identifies and resolves program issues, determines program status, and seeks opportunities for acquisition reform. The Program IPT (PIPT) includes the S4 as the team leader, selected Special Forces detachment members and possibly manufacturer representatives. The PIPT is responsible for executing the test and evaluation of the commercial and nondevelopmental items.

Joint Operational Stock (JOS): An organization within the Department of Defense that supports specialized equipment needs throughout the Department of Defense (DoD). The equipment is presented in a paper and electronic catalog and can be ordered and used for a set period of time by a DoD unit.

Life cycle cost: The total cost to the Government of acquiring, operating, supporting, and (if applicable) disposing an item.

Micro-purchase: A purchase by a unit with a Government Purchase Card for \$2,500 or less, which may be made without obtaining competitive quotations if the price is reasonable.

Nondevelopmental Item (NDI): A NDI is an item that was previously developed and used exclusively for governmental purposes by a Federal, State, or local government, or a foreign government with which the United States has a mutual defense cooperation agreement. NDIs may require minor modifications in order to meet the requirements of the unit. Items that are developed and will soon be used by the Federal, State or local governments, or a foreign government are also considered NDI. (DAD, 2000, 2.5.3)

Procurement Desktop II: This is the single, Army-wide, system for electronic solicitations and responses from manufacturers and other sources of supplies and services.

Resource Management Officer (RMO): A finance officer located in the Special Forces Group Headquarters who tracks the unit's financial resources, makes budgetary recommendations, and assists the battalion S4s to earmark funds for acquisitions.

Simplified Acquisition Procedures (SAP): An acquisition of supplies, services or construction in the amount under \$100,000 using streamlined procurement procedures found in the FAR Part 13.

United States Army Special Forces Command (USASFC): USASFC is located at Fort Bragg, North Carolina and exercises command and control over five active component Special Forces Groups to include 1st Special Forces Group (1st SFG). 1st SFG exercises command and control over 2nd Battalion.

United States Army Special Operations Command (USASOC): USASOC is located at Fort Bragg, North Carolina and exercises command and control over USASFC.

USASOC is the lowest command in Special Operations where a warranted Contracting Officer is billeted.

G. ORGANIZATION OF STUDY

Following this introductory chapter, the thesis is organized through four chapters (see Figure 1, Thesis Organization). Chapter II introduces The 12-Phase Acquisition Process in model form. Resources such as the Federal Acquisition Regulation (FAR), field manuals (FM), unit standard operating procedures (SOP), expert acquisition opinion and the Defense Acquisition Deskbook (DAD) are used to provide pertinent elements for The products of this chapter are a description of the 12 phases for acquisitions conducted at the battalion level, an acquisition example, and a questionnaire. The questionnaire is used to facilitate the interviews of key individuals involved with or on the periphery of 2nd Battalion's acquisition process. These interviews provide insight to the battalion's acquisition process and help develop 2nd Battalion's Acquisition Process model, which is described in Chapter III. Chapter IV uses the 12 phases to analyze 2nd Battalion's acquisition process. Professors, expert acquisition opinions, and resources from the Naval Postgraduate School (NPS) are used to develop and add clarity to this qualitative analysis. Chapter V concludes the thesis study by summarizing the findings, answering the research questions, and providing recommendations for 2nd Battalion to improve its acquisition process goals of acquiring the best-price or best-value item, minimizing delays and satisfying the detachments. Additionally, areas for further research are also identified.

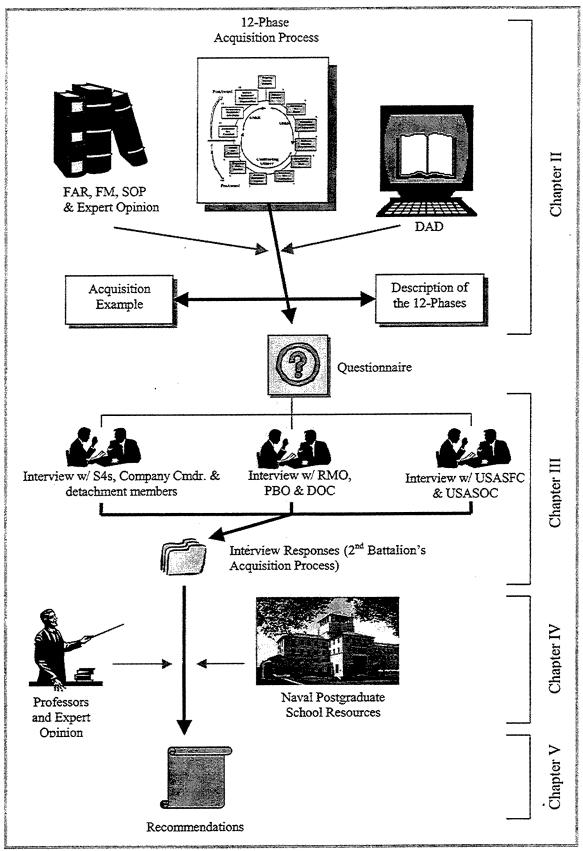


Figure 1. Thesis Organization (Source: Developed by Researcher).

H. BENEFITS OF STUDY

By incorporating the recommendations of this study, 2nd Battalion may have an increased opportunity to use its available assets or acquire CIs and NDIs at a better price or better value than the battalion is currently procuring. 2nd Battalion may also be able to increase its purchasing of economic quantities through a better application of its three primary purchase methods.

By procuring best-price or best-value equipment items in economic quantities and with minimal delay, 2nd Battalion may be able to buy more requirement fulfilling equipment or save its valuable resources. These outcomes can only help to increase the satisfaction among the recipients of the equipment, the 2nd Battalion detachments.

II. THE 12-PHASE ACQUISITION PROCESS

A. INTRODUCTION

The 12-Phase Acquisition Process (hereafter referred to as "the 12-Phases") was developed by the faculty of the Graduate School of Business and Public Policy, NPS, and is a cornerstone concept for every contracting class at NPS. This 12-Phase process shares many commonalities with Stanley N. Sherman's Generic Procurement Model and OMB circular A76's Major System Acquisition Cycle. Where the 12-Phases differ is that they provide distinct phases that an equipment user and Contracting Officer must be aware of, participate in or be responsible for throughout the cycle to procure an equipment item. Each phase in the 12-Phases, however, is just a shell and must be filled with the appropriate elements, which depend on the specifics of the acquisition, the FAR, the unit's regulations and the unit's SOPs.

Since most of 2nd Battalion's acquisitions are either CIs or NDIs and under \$100,000 this chapter relies greatly on the FAR Part 12 (Acquisition of Commercial Items) and the FAR Part 13 (Simplified Acquisition Procedures) to provide many of the elements for the 12-Phases.

B. A PHASE-BY-PHASE EXPLANATION (THE THEORY)

A general model of the 12-Phases is depicted in Figure 2, 12-Phase Model. The model identifies the Pre-award phases, which the user of the ensuing equipment item is heavily involved during the first four phases, and the Post-Award phases where the user is again deeply involved with the last two phases. Phases 5-10 are where the bulk of the Contracting Officer's (CO) work is relegated.

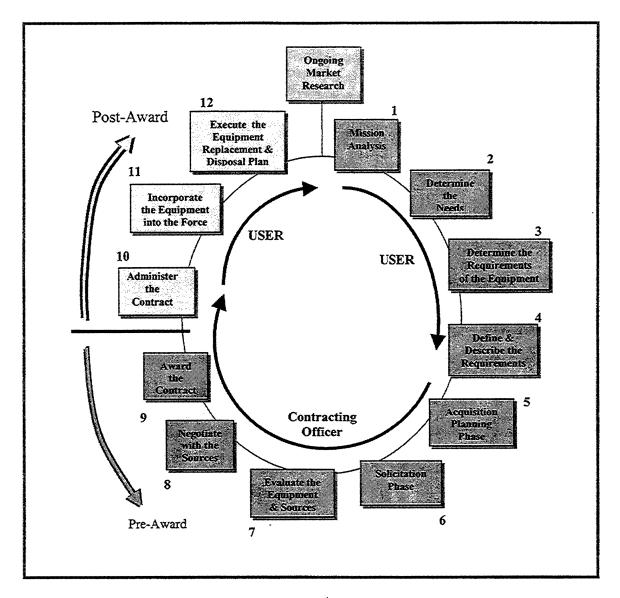


Figure 2. 12-Phase Model (Source: Developed by Researcher).

The phases represent the lifecycle of a single acquisition action beginning with the user's Mission Analysis and ending with the disposal of the acquired equipment item at the end of its useful life. Throughout the model Market Research is conducted as an ongoing and iterative event to identify not only the CIs and NDIs available that could satisfy the user's need, but to understand the commercial practices, military logistical procedures and market conditions to effectively acquire these items (SD-5, 1992, p. 3).

1. Phase 1 (Mission Analysis)

As with all military endeavors, knowing the mission is critical to a successful outcome. Key individuals, such as 2nd Battalion's S4 must be a part of the analysis of the detachments' missions and help identify the operational and support tasks. This Mission Analysis includes an assessment of the detachments' tactics, training, and equipment against the enemy's assets, along with the environmental factors (e.g., weather, terrain, light conditions, vegetation) that the detachments will encounter in their mission areas (DAD, 2000, 1.1.1.1). The Mission Analysis allows the S4 and the detachments to start thinking about what has to be done in order to complete the detachments' missions.

2. Phase 2 (Determine the Needs; Lack of a Capability or an Opportunity)

When the [mission] analysis identifies a deficiency in an existing [detachment's] capability or an opportunity to establish new capabilities in response to a technological feasible opportunity, this will be formally set forth in a mission need statement (Major Systems Acquisition, 1976, p. 6).

To restate the previous plainly, a need can improve an existing capability, establish a new operational or support capability, or exploit an opportunity to reduce cost or enhance performance (DAD, 2000, 1.1.2). Needs are not communicated in terms of equipment or system-specific performance characteristics, but in terms of mission, objectives and general capabilities (SOF Logistics Handbook, n.d., pp. 7-5).

Once a need(s) has been identified, an Overarching Integrated Product Team (OIPT) works to document and validate the need and then start the need on the road to a solution (DAD, 2000, 1.1.1.2). Documentation entails the OIPT to jot down the need and begin drafting a mission need statement (MNS) using a standard and accepted format, such as USSOCOM's MNS (see Appendix A). Using a formatted MNS is important for

it helps ensure that a complete picture of the threat, environment, shortfalls, and constraints are considered when determining a need(s) (SOF Logistics Handbook, n.d., p. 7-5).

With a documented need, the OIPT validates it by examining the circumstances that brought about the need and confirming that the circumstances justify expending the resources to satisfy the need.

With a documented and validated need, the OIPT works to find a solution. The first step is to solve the need with a non-material solution or an asset available to 2nd Battalion (DAD, 2000, 1.1.2.1). A non-material solution is a change in the tactics, techniques and training of a detachment. An asset available to the battalion is an item found in the many supply and storage facilities managed by the battalion and group or in the Joint Operational Stock (JOS) catalog or from other supporting organizations. This item may or may not have been specifically designed for the need, but will satisfy it.

If a change in tactics, techniques or training is unsuitable and there are no assets available to 2nd Battalion that will satisfy the detachment's need(s), then the OIPT moves to Phase 3.

3. Phase 3 (Determine the Requirements of the Equipment)

The OIPT takes the need(s) that is stated in terms of mission, objectives and general capability and determines the requirements for the equipment sought. These requirements are in terms of the functions to be performed, performance required, or essential physical characteristics (Cibinic, 1997, p. 349). With these initial requirements, the OIPT forms a Working Integrated Product Team (WIPT) to perform preliminary Market Research using personal experience, industry contacts, catalogs, trade

associations, the Group Force Modernization Officer's resources, the USASFC website, and Internet search engines (FAP, n.d., pp. 6-15). This preliminary Market Research determines what CIs or NDIs are available that will or could meet the initial requirements and the parameters associated with acquiring the items.

4. Phase 4 (Define & Describe the Requirements)

The description of a detachment's requirements must contain sufficient detail for potential sources of CIs or NDIs to know which item they manufacture or have in inventory might satisfy the requirements (FAR, 2001, 12.202). The WIPT ensures that military jargon and requirements that seem obvious to the detachment are communicated in terms that the commercial market or Department of Defense (DoD) civilians can understand. If this translation is overlooked, the WIPT's pool of potential sources for the equipment item can quickly shrink (FAR, 2001, 12.202). Much of the interpretation between "military" and "civilian" terms is done during the Market Research of Phase 3, but it is in this phase that common ground must be found in order to proceed to any other phase.

During Phase 4 the OIPT and WIPT must consider an Integrated Analysis of Alternatives and a challenge to unique requirements (DoD 5000.2R, 2001, p. 2.3). The Integrated Analysis of Alternatives is a continual search for solutions to the requirements without committing to procure a new item acquisition. For instance, the WIPT could try modifying equipment items within the battalion or use equipment items in a non-traditional manner. If these alternatives can fulfill the detachment's requirements and satisfy the need, then a new equipment item will not have to be acquired and the 12-Phase process ends here.

The challenging of unique requirements is, after preliminary Market Research, a determination that one or more requirements are too restrictive and prevent a CI or NDI from being considered. If these restrictive requirements can be changed, and this change does not significantly affect the detachment's ability to perform the operational or support tasks, then the WIPT should challenge the restrictive requirements and request that the OIPT revise them. By challenging the unique requirements so that a CI or NDI can be considered, the WIPT may be able to avoid contracting for a unique developmental item, which is usually costlier and has a lengthier acquisition cycle (FAR, 2001, Part 7).

In addition, the WIPT by this phase must seek feedback from any request for information (RFI) submitted in Phase 1 concerning such things as the enemy's capabilities and the environment in the mission area. By being part of the feedback loop, the WIPT can apply this additional information to further revise the equipment requirements.

From the Market Research of Phase 3 and Phase 4, the WIPT will have a good idea of the price range for a CI or NDI. With this information, and if no alternatives are yet available, the OIPT decides whether to approve funding for the acquisition. If funding is approved (the Program Budget Decision), the WIPT then starts Phase 5 (DoD 5000.1, 2001, p. 4.1).

5. Phase 5 (Acquisition Planning)

The FAR 7.105 states that all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the detachment's need in a timely manner and at a reasonable cost in the level of effort and resources

needed to implement the plan. The Acquisition Planning Phase is a living operations order for the acquisition and forms the basis for sound management along with a historical record of the decisions made and changes in the acquisition (DAD, 2000, 1.2). One of the significant products of this phase is the drafting of the Acquisition Plan. This plan coordinates the who, what, where, when, why and how Phases 6-12 will be conducted. It is by this phase that the WIPT should include the assistance of a Contracting Officer and brief him on the work completed in the previous phases.

In the Acquisition Plan, the WIPT must include the subject of the plan, the purpose and the general background of why the acquisition is necessary. This information focuses all participants of the Acquisition Plan on the goal of the acquisition. In addition, the Acquisition Plan must delineate the composition of the WIPT and PIPT, list the responsibilities of each, and make clear the issues of price and value, schedule, requirements, and coordinating instructions. Other products that evolve from the Acquisition Planning Phase are the solicitation plan, test and evaluation plan (to include evaluation criteria), milestone decision plan, equipment integration plan and the equipment replacement and disposal plan (DAD, 2000, 2.5).

6. Phase 6 (Solicitation Phase)

In this phase the Contracting Officer in the WIPT helps the WIPT execute the decisions of Phase 5 concerning the solicitation for offers, how offers will be evaluated and what constitutes a best-value (Ross, 1999, p. 20). Though 2nd Battalion's acquisition will fall under the guidelines of the SAP, which helps streamline the CI or NDI acquisition, there are many finite details such as small and disadvantaged business concerns, deadlines, economic purchase quantities, contract clauses, payment discounts,

and many other issues related to the FAR Part 7, 12, and 13. This is the phase where the Contracting Officer in the WIPT brings together the detachment's established requirements and the business conditions into a package that is then exposed via the Procurement Desktop II system to the CI and NDI sources (Sherman, 1997, p. 150). Reception of the package by the sources and their responses in the form of offers initiates a series of risk reduction actions by the WIPT and Contracting Officer.

Risks such as inaccurate claims by the sources concerning their items' capabilities, inability of the sources to modify their items, and undesirable business practices of the sources can still put the acquisition in peril. Many of these risks will be mitigated by the fact that the CI and NDI is an off-the-shelf product of mature design, but the Contracting Officer and Program Integrated Product Team (PIPT) must attempt to reduce these risks further in Phase 7.

7. Phase 7 (Evaluate the Equipment and Sources)

While the PIPT reduces the risks to the acquisition through such means as testing and evaluating sample equipment items provided by the sources, the Contracting Officer evaluates the sources on issues such as past performance, the lifecycle cost of their items and price reasonableness. Issues such as the source's financial resources, ability to perform any modifications, business integrity and ethics, experience, technical skills, and ability to fulfill the revised requirements may also be evaluated. Any discrepancies found will be consolidated and then addressed by the Contracting Officer in Phase 8.

8. Phase 8 (Negotiate with the Sources)

By the very nature of the Simplified Acquisition Procedures, negotiations with a CI or NDI source are not required and thus are very limited or usually not conducted at

all. However, many sources are willing to provide additional price breaks to the Government to establish themselves in the Government's procurement circle, to lay claims to other potential buyers that their product is used by the Government, or for patriotic reasons (Dove, 2001). An aggressive Contracting Officer in the WIPT can capitalize on these reasons and negotiate a price that is better than the advertised price, which will allow the detachment to purchase more items or save a portion of its resources. In addition, negotiations for any modifications to a CI or NDI may be needed, for a source may have a great "as is" price for their item, but may seek to make an unduly large profit off of even the slightest modification.

9. Phase 9 (Award the Contract)

The culmination of the Pre-Award phases is the award of the contract. In this phase any evaluation of the sources' equipment done by the PIPT and the work done in Phases 7 & 8 by the Contracting Officer are combined, reviewed and a winner is determined by the OIPT with Contracting Officer assistance. The OIPT and Contracting Officer ensure that the requirements revised and submitted in Phase 4 and used to evaluate in Phase 8, are the basis for the decision in this phase. Once a source's item is determined the winner, the WIPT will prepare a DA Form 3953 (Purchase Request and Commitment) and send it to the Directorate of Contracting (DOC) via the Aquiline. At the DOC, the Contracting Officer from the WIPT prepares, using the Procurement Desktop II, a standard contract for a SAP that includes the necessary clauses from the FAR. The Contracting Officer notifies the winning source and debriefs unsuccessful sources only upon request of the unsuccessful sources (FAR, 2001, 13.106-3).

10. Phase 10 (Administer the Contract)

At this juncture the Contracting Officer still retains responsibility over administering the contract, but is greatly aided by the user. Currently contracting offices are largely understaffed and overburdened, primarily because of the workforce reductions imposed during the 1990s (Charles, 2001). The Contracting Officer at this phase is likely refocusing his attention to other contracts and may not be able to keep abreast of schedule or quality changes that the winning source undergoes. To maintain oversight, the S4 coordinates with the WIPT Contracting Officer and receives approval to keep a dialog open with the source and alerts the Contracting Officer to problems affecting the delivery or quality of the winning item (Dove, 2001). The Contracting Officer, upon notification of a problem, contacts the source and demands an explanation, possibly requests consideration, or as a last resort terminates the contract. If the Contracting Officer is properly integrated into the WIPT, he is able to take prompt action that best benefits 2nd Battalion (Dove, 2001).

11. Phase 11 (Incorporate the Equipment into the Force)

The onus of responsibility for the 12-Phases shifts back to the user in this phase. Here the S4 obtains from the Contracting Officer the contract number for the ordered item and provides that number to the Central Receiving Point (CRP) at the Directorate of Logistics. The S4 coordinates with the CRP to alert him when the item is delivered. When the item arrives, which should be by the scheduled deadline stated in the Acquisition Plan and the solicitation, the S4 or other members of the WIPT go to the CRP and conduct an item acceptance inspection. The WIPT looks for any patent defects or revised requirement shortfalls that are readily identifiable. If defects or shortfalls exist, the WIPT does not sign for the item, but immediately calls the Contracting Officer.

The Contracting Officer then calls the source and demands an explanation, possibly requests consideration, or as a last resort terminates the contract. The most important point is that the source is not paid and the detachment's funds are not wasted if the item does not pass the acceptance inspection (Dove, 2001).

If the item does pass the acceptance inspection, the WIPT brings it to the Group's Property Book Officer (PBO) and makes the item accountable on the property book. The WIPT then coordinates for the PIPT to field test the item in order to uncover any latent defects or revised requirement shortfalls. If latent defects exist or revised requirements are not met, then the Contract Officer exercises the item's warranty or other protective measures (Dove, 2001).

Once the item passes its field tests it is incorporated into the detachment and the rest of the battalion. This incorporation takes the form of a train-the-trainer or similar program. The WIPT also assess whether the useful-life tracking plan established in the Acquisition Plan is suitable for the operational item. If needed, adjustments to the tracking plan are made and the plan is incorporated throughout the battalion.

12.. Phase 12 (Execute the Equipment Disposal Plan)

Using the useful-life tracking plan, the WIPT maintains oversight of the item and determines when the time nears to replace and then dispose of the used item. The WIPT allows enough lead-time to have, if necessary, a replacement item in Phase 11, of the 12-Phases, prior to the end of the useful life of the used item. This slight overlap of replacement item and used item ensures that the detachments' needs are continually met (Dove, 2001). In addition, the WIPT must ensure that all hazardous material (HAZMAT)

regulations and other applicable Federal and State laws are followed with regard to the disposal of the used item.

C. AN EXAMPLE OF THEORY PUT INTO PRACTICE

An example that will help illuminate the 12-Phases previously described is based on the acquisition of the Long-Range Night Vision Device (LRNVD), which 2nd Battalion completed over 18 months ago. The reader must understand that the LRNVD acquisition is described as it would have theoretically occurred under the guidance of the 12-Phases. In actuality, no formalized acquisition process was used and the LRNVD procurement was much less structured and efficient.

1. Phase 1 (Mission Analysis)

At a 2nd Battalion mission analysis, a Special Forces Detachment Commander stated "Our Mission Letter says that we have to conduct continuous surveillance for eleven days on this target that is approximately 1500 meters away from any good hide site location. In order to do this, we're going to have to identify that target at night in zero illumination, but our current night vision devices are only good to 300 meters in these conditions. Also, the enemy may have night vision devices that could detect our movement. Is there anything available that can help me conduct this mission or am I going to have to move closer to the target and possibly compromise my detachment?"

Here the Detachment Commander has identified his operational task and a need has emerged: identification of a target in zero illumination at approximately 1500 meters. He also recognized an uncertainty about the enemy's night vision device (NVD) possession, which triggered a request for information (RFI) through the OIPT to the proper intelligence channels.

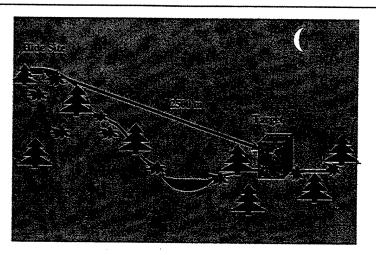
2. Phase 2 (Determine the Needs; Lack of a Capability or an Opportunity)

The Detachment Commander has a need to improve his capability to identify a target that is approximately 1500 meters away in zero illumination. In addition, if superior NVDs are available, he also has a need to take advantage of a technological opportunity.

The OIPT wrote down these needs using USSOC's MNS format to ensure that all circumstances surrounding the need were considered. The OIPT then reviewed the MNS and paid close attention to the detachment's mission graphics (which portrayed the detachment's hide site and target location), the moon illumination chart, and the range of the detachment's night vision devices. With this review, the OIPT concluded that the detachment would be unable to identify a target at the necessary distance, at night, in zero illumination with their organic NVDs. The need was validated.

3. Phase 3 (Determine the Requirements of the Equipment)

Since it was too risky for the detachment to reposition closer to the target (a change in tactics, techniques or training) and there were no assets available to 2nd Battalion (from the Group arms room, JOS catalog, etc.) that could satisfy the need, the OIPT and Detachment Commander drew this picture and listed the initial requirements for an LRNVD (see Figure 3, Initial LRNVD Requirements).



Initial LRNVD Requirements

- 1. LRNVD must identify a target 2500m at night during 0-100% illumination accompanied with rain and fog
- 2. LRNVD must be lightweight
- 3. LRNVD must be ruggedized, waterproof, air-droppable
- 4. LRNVD should have a dual function to reduce overall weight
- 5. LRNVD must use a battery common to other mission equipment
- 6. LRNVD must have long battery life
- 7. LRNVD must operate from the hide site
- 8. LRNVD must be camouflaged and operate in a tactical environment

Figure 3. Initial LRNVD Requirements (Source: Developed by Researcher).

The OIPT arbitrarily listed 2500m as the initial requirement for the LRNVD's range (instead of the 1500m discussed with the Detachment Commander), because the OIPT assumed the more range the better the equipment item.

The OIPT then formed a WIPT that called Deputy Chief of Staff Acquisitions & Contracting at USASFC to determine if USASFC or any other Special Operations unit was working on a LRNVD that could satisfy all the requirements. No other units were doing such and USASFC had no procurement plans for a LRNVD. The WIPT then scoured through a library of catalogs and searched its list of websites, but could find no CIs or NDIs that matched the requirements. The WIPT then called the Item Manager for

Night Vision Devices at Fort Belvoir, the Army Research Laboratory and then various NVD manufacturer representatives. All wanted to assist, but the DoD civilians and the NVD manufacturer representatives had problems understanding the LRNVD requirements.

4. Phase 4 (Define and Describe the Requirements)

The WIPT realized that after discussing the initial requirements for a LRNVD with the many potential sources that these ambiguous words caused confusion: identify; target; fog and rain; lightweight; ruggedized; air-droppable; common battery; long battery life; hide site; camouflaged and tactical. The WIPT also received a response from the RFI submitted in Phase 1 that the enemy had Generation I, NVDs that could detect movement out to 400 meters in 0% illumination. More significantly, the enemy's NVDs were very sensitive to Infrared light transmitted at the 300-800 nanometer wavelengths. Since the WIPT included a detachment engineer, he determined that if the LRNVD was to use a laser range finder, laser designator, or laser illuminator, then the laser would have to operate above 800 nanometers where it would be invisible to the enemy's NVDs.

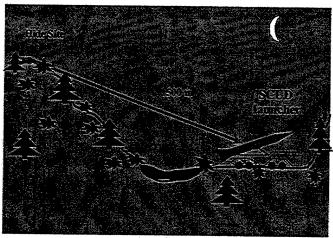
The WIPT then called the DOC and added a Contracting Officer to the WIPT.

The Contracting Officer helped revise the LRNVD requirements by:

- Challenging the unique requirements of the LRNVD and ensuring that there was no "gold plating"⁴
- Translating the LRNVD's ambiguous requirements into terms that the market could understand

⁴ The OIPT's arbitrary range requirement of 2500 meters is an example of gold plating. By establishing a range that far exceeds the requirements, the OIPT may end up having to purchase a much more expensive CI or NDI then is actually needed. Also, this arbitrary requirement may be too great for current CIs and NDIs to fulfill and exclude them from the competition, causing an expensive, time-consuming developmental item to be contracted and built.

The Contracting Officer then used the revised requirements along with the preliminary Market Research and conducted a detailed Market Research using Government and non-Government databases. These were the revised requirements (see Figure 4. Revised LRNVD Requirements):



Revised LRNVD Requirements

- LRNVD must be able to determine in 0-100% illumination accompanied by light evening fog or a
 drizzle whether an object at 1500m or farther is a SCUD launcher (launcher is approx. 20m long)
- 2. LRNVD weight should be less than 6 pounds with all accessories and one set of batteries and must fit in one, standard, large, Army rucksack
- 3. LRNVD must be shatter and shock resistant, waterproof, and must be able to operate after a parachute deployment in a soldier's rucksack
- 4. LRNVD should have a dual function like a laser range finder, laser designator, or laser illuminator (or other dual function that will negate the need for a separate piece of mission equipment and will overall lighten the soldier's load). If a laser is used it must transmit above 800 nm
- LRNVD should use batteries common to other mission equipment. The two most common are AA and BA5953
- 6. LRNVD will be turned on when a vehicle enters the target area. LRNVD must be operational in 0-5 seconds. LRNVD will be turned off when vehicle leaves the target area. Total usage per evening will be less then 4 hours. A set of batteries must last longer then 4 hours to avoid a battery change in the dark. Total battery load for the LRNVD, for an eleven-day mission, should be less than two pounds
- 7. LRNVD must perform in a hide site (a structure built using camouflage nets) that is no taller than 24 inches and is covered with vegetation
- 8. LRNVD must have a dull or discrete finish (i.e. flat black or earth tones). LRNVD must not give away user's location by emitting loud sounds or by other means.

Figure 4. Revised LRNVD Requirements (Source: Developed by Researcher).

During this phase the WIPT also began an Integrated Analysis of Alternatives and coupled a battalion's organic NVD to a spotting scope in an attempt to increase the NVD's range and have it satisfy the revised LRNVD requirements. The experiment failed, but the WIPT never discounted the fact that an alternative could emerge during the remaining phases of the acquisition.

The Contracting Officer's detailed Market Research uncovered three manufacturers who had a LRNVD that seemed to meet the revised LRNVD requirements. The price of these LRNVDs was between \$5,000 and \$12,000 each and the OIPT concluded that the battalion could afford up to \$60,000 on the LRNVD acquisition. The OIPT also decided that it would not use best-price, but best-value criteria for the LRNVD acquisition.

5. Phase 5 (Acquisition Planning)

The WIPT, including the Contracting Officer, then went forward and developed an Acquisition Plan memorandum for the LRNVD. This memorandum, displayed on the next few pages, covers in detail the actions of Phases 6-12 for the LRNVD.

DEPARTMENT OF THE ARMY

Headquarters, 2nd Battalion, 1st Special Forces Group (Airborne) Fort Lewis, Washington 98433-7020

AOSO-SFI-SN

02 JANUARY 2001

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Acquisition Plan for Long-Range Night Vision Device

- 1. Purpose: This Acquisition Plan identifies the resources and procedures for determining, procuring and then incorporating a long-range night vision device (LRNVD) into 2nd Battalion.
- 2. Applicability: This memorandum applies to all personnel listed in the distribution. Any deviation from this memorandum must be coordinated through the Battalion Executive Officer.
- 3. GENERAL: One of 2nd Battalion's operational tasks is to identify strategic vehicles, like the SCUD missile launcher, at night in 0-100% illumination and during the types of weather found in country X. After a recent mission analysis it was determined that acceptable hide sites locations are 1500 meters from any route that the strategic vehicles would travel in the area of operations. There are no LRNVDs available in the Federal and State inventories that can identify a strategic vehicle under these conditions and within the constraints necessary to conduct a dismounted Special Reconnaissance mission. However, research has so far uncovered three commercial LRNVDs that might prove useful.

4. RESPONSIBILITIES:

- a. Overarching Integrated Product Team (OIPT)
 - (1) Composed of the Bn Cdr (team leader), Bn CSM, XO, S3 and S4.
- (2) Ensure the strategic and tactical goals along with the acquisition regulation parameters will be met in testing, evaluating, determining a winner, awarding a contract (purchase order) and incorporating the new LRNVD into the force. Additionally, provide program assessment at critical junctures (milestone decision points) and resolve any issues within the acquisition and with higher headquarters.
 - b. Working Level Integrated Product Team (WIPT)
- (1) Composed of the S4 (team leader), S2, S3 Training NCO, Group RMO, Group Force Mod Officer, Group S4, A Co. Cdr, A Co. CSM, ODA 144 Cdr, ODA 143 Cdr, ODA 142 Cdr, Motor pool NCOIC, and a Contracting Officer (CO) from the DOC.
- (2) Identify and resolve issues within the testing, evaluation, determination of a winner, awarding of a contract and incorporating the new LRNVD into the force. Determine and report program status to the OIPT regularly. Prepare and formally present a status of the program at the milestone decision points to the OIPT. Seek opportunities to streamline this acquisition that will provide the best-value LRNVD to the force within the price, schedule and performance (requirements) parameters.
 - c. Program Integrated Product Team (PIPT)
- (1) Composed of S4 (team leader), ODA 144, 143 & 142 Cdrs, Team Sergeants, Engineer NCOs, Weapon NCOs, and a driver from the motor pool.

Page 1 of 10

(2) Test, evaluate and provide recommendations IAW Annex A.

5. PRICE, SCHEDULE AND PERFORMANCE

a. The total price for this acquisition will be no more than \$60,000. This price does not include travel and deployments associated with the testing of the sample LRNVDs. This price does include any modifications deemed necessary for the tested LRNVDs.

b. The schedule is as follows:

121500 Feb 01: meeting of WIPT to discuss the Acquisition Plan in the Bn Conf. room.

131500 Feb 01: meeting of PIPT to discuss test/evaluation schedule in the S4 shop.

151600 Feb 01: WIPT secure the LRNVDs from manufacturers for testing.

161500 Feb 01: PIPT familiarize with the LRNVDs in the S4 shop.

201800 Feb 01: (illumination 10%) move HEMMIT with mock SCUD to Range 51. WIPT assemble 1900 hours at Range 51 tower. Target will be positioned at 300, 500, 750, 1000, 1250, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200 and 2300 meters throughout the evening.

211300 Feb 01: S4 informally report events of 20 Feb 01 to OIPT.

221800 Feb 01: (Illum. 05 %) PIPT repeat events of 20 Feb 01.

231300 Feb 01: S4 informally report events of 22 Feb 01 to OIPT.

261800 Feb 01: (Illum. 0%) PIPT repeat events of 20 Feb 01.

271300 Feb 01: S4 informally report events of 26 Feb 01 to OIPT.

281800 Feb 01: (Illum. 0%) PIPT repeat events of 20 Feb 01.

011300 Mar 01: S4 informally report events of 28 Feb 01 to OIPT.

011500 Mar 01: ODA 144 conduct airborne operation with LRNVDs.

021800 Mar 01: (Illum. 25%) PIPT repeat events of 20 Feb 01.

051300 Mar 01: S4 informally report events of 02 Mar 01 to OIPT.

061800 - 161800 Mar 01: PIPT repeat events of 20 Feb 01. Ensure 100%, 75% and 50% illumination are tested. Also include nights of light rain and evening fog.

211300 Mar 01: WIPT present the results of testing and evaluation at Milestone 1 briefing in 2nd Battalion's conference room to OIPT. Have recommendations for modifications to LRNVDs.

231300 Mar 01: OIPT decide winner of LRNVD test or exit the acquisition. If there is an "as is" winner, then authorize acquisition of that LRNVD. If there is a winner, but modifications are necessary, then see the alternate schedule.

260800 Mar 01: WIPT (S4, RMO & CO) prepare and issue the DA Form 3953 (or ULLS if applicable) to the manufacturer. Take delivery of LRNVD(s) NLT 061600 Apr 01. Use the Acquiline electronic system if applicable.

091300 Apr 01: WIPT submit a 2nd Battalion LRNVD familiarization-training schedule for 16-27 Apr 01.

1600900 - 272300 Apr 01: WIPT conduct LRNVD familiarization training for 2nd Battalion.

The following alternate schedule is conducted if a modification to the winning LRNVD is needed

260800 Mar 01 – 271800 Apr 01: WIPT (S4, RMO & CO) prepare and issue the DA Form 3953 (or ULLS is applicable) to the manufacturer for one modified LRNVD. Take delivery of modified LRNVD NLT 161600 Apr 01. Use the Acquiline system if applicable. Conduct further testing of modified LRNVD.

010900 May 01: WIPT present results of testing and evaluation of modified LRNVD at Milestone 2 briefing in 2nd Battalion's conference room to OIPT.

031300 May 01: OIPT decide to acquire additional modified LRNVDs (if it is within the budget) or exit the acquisition.

040800 May 01: WIPT (S4, RMO & CO) prepare and issue the DA Form 3953 (or ULLS if applicable) to the manufacturer for the remaining modified LRNVD(s). Use the Acquiline system if applicable. Take delivery of remaining LRNVD(s) NLT 141600 May 01.

051300 May 01: WIPT submit a 2nd Battalion LRNVD familiarization-training schedule for 22-31 May 01.

220900 - 312300 May 01: WIPT conduct LRNVD familiarization training for 2nd Battalion.

- c. Performance: These are the requirements for the LRNVD. The requirements will be weighted and used to determine the winning LRNVD (see Annex B):
 - (1) LRNVD must be able to determine in 0-100% illumination accompanied by light evening fog or a drizzle, whether an object at 1500m or farther is a SCUD launcher (launcher is approx. 20m long).
- (2) LRNVD weight should be less than 6 pounds with all accessories and one set of batteries and must fit in one, standard, large, Army rucksack.
- (3) LRNVD must be shatter and shock resistant, waterproof, and must be able to operate after a parachute deployment in a soldier's rucksack.
- (4) LRNVD should have a dual function like a laser range finder, a laser designator, a laser illuminator for the target, or other dual function. If a laser is used it must transmit above 800 nm.

Page 3 of 10

- (5) LRNVD should use batteries common to other mission equipment. The two most common are AA or BA5953.
- (6) LRNVD will be turned on when a vehicle enters the target area. LRNVD must be operational in 0-5 seconds. LRNVD will be turned off when vehicle leaves the target area. Total usage per evening will be less then 4 hours. A set of batteries must last longer then 4 hours to avoid a battery change in the dark. Total battery load for LRNVD for an eleven-day mission should be less than two pounds.
- (7) LRNVD must perform in a hide site that is no taller than 24 inches and is covered with vegetation.
- (8) LRNVD must have a dull or discrete finish (i.e. flat black or earth tones). LRNVD must not give away user's location by emitting loud sounds or by other means.

6. COORDINATING INSTRUCTIONS

- a. Phase 6 (Solicitation Phase):
- (1) The WIPT has already conducted a detailed Market Research and found three commercial LRNVDs that could provide a best-value. The WIPT will continue to perform Market Research and an analysis of alternatives throughout the remaining acquisition process. The Contracting Officer in the WIPT will post the LRNVD requirements on Procurement Desktop II (NLT 05 Jan 01) or similar medium to allow for the maximum competition. All manufacturers must provide a test LRNVD to 2^{nd} Battalion NLT 151600 Feb 01 to be included in the test and evaluation and be considered as a source.
 - (2) Contracting Officer ensure that these SAP issues are addressed:
 - -Small and disadvantaged business concerns
 - -Promotion of competition to the maximum extent possible
 - -Deadlines are established for submission of response to solicitations
 - -Post the deadline in the solicitation for providing a test LRNVD
 - -Explore economic purchase quantities
 - -Provision for the inspection of the sample and winning LRNVDs
 - -Related items (tripods, maintenance equipment, carrying bags, etc.) are considered in the solicitation
 - -Maximum effort to obtain trade and prompt payment discounts
 - -The pricing information used is current
 - -2nd Battalion obtains the benefit of maximum discounts before award
 - -Solicitations are not based on personal preference and solicitations are not restricted to just well-known suppliers or widely distributed makes or brands

Page 4 of 10

- -Use Procurement Desktop II or other electronic means for solicitations. If this is not practical then gain maximum practical competition from soliciting quotations or offers from sources within the local trade area
- -Consider solicitation of at least 3 sources to promote competition
- -If only one source is willing to submit a test LRNVD and his LRNVD meets the requirements, then be prepared to help the WIPT submit a sole source memorandum
- -Ensure manufacturers know that, price, past performance, quality, schedule and the LRNVD requirements will be used as evaluation factors to determine a winner. Do not inform the manufacturers how we will weigh each evaluation factor.
- -Explore the use of options (an example: buy one winning LRNVD with the option to buy more at a later date)
- b. Phase 7 (Evaluate the Equipment & Sources):
- (1) S4 coordinate with JAG on the legalities of the "borrowed" test LRNVDs. 2nd Battalion must not be held liable for fair ware and usage of the LRNVDs. LRNVD manufacturers must agree that their LRNVD can go through operational testing to determine if their LRNVD is shock/shatter resistant, waterproof, and can withstand an airborne operation. LRNVD manufacturers must understand that 2nd Battalion will not endorse their product and that pictures and raw test results will not be made available. S4/JAG draft a letter of agreement outlining the above with the manufacturers.
- (2) If a laser is part of the dual function of the LRNVD, then S4 ensure that the LRNVD familiarization class with PIPT on 161500 Feb 01 includes laser safety training. Ensure that the lasers used are IAW OSHA or other recognized standards.
 - (3) S4 will be responsible for securing the LRNVDs when not used for training.
 - (4) S4 record the weight each LRNVD with all its accessories and one set of batteries.
- (5) S4 conduct a continuous use test to determine how long a set of batteries will last in each set of LRNVDs. Conduct test in field conditions. Estimate the weight of the battery load for each LRNVD for an 11-day mission. Consider that the 1st and last night will be for movement and the LRNVD will most likely not be used on those nights.
- (6) S4 work with the DOC and manufacturers to develop a life cycle cost for each LRNVD. Consider such factors as maintenance cost, parts replacement, calibration cost, etc.
- (7) S4 and HEMMIT driver bring Motorola radios each testing night to expedite the HEMMIT repositioning on Range 51.
- (8) S4 secure one set of the enemy's Generation I, NVDs from Natick labs or other source so that testing of the 800nm wavelength threshold can be done.
- (9) S4 determine who on the WIPT needs to be present for the Milestone briefings. Discuss Milestone briefing format with XO NLT 2-days before the Milestone briefings.

Page 5 of 10

- (10) S4 have DOC conduct a past performance analysis on all the manufacturers that submit LRNVDs for testing.
- (11) PIPT use the Test and Evaluation Worksheet (see Annex A) for all the LRNVD tests.
- (12) WIPT develop a system to track the useful life of each LRNVD and a potential replacement/disposal plan.
- (13) WIPT develop a risk management plan NLT 161000 Feb 01 that addresses risks (breaking of the loaned test LRNVDs, safety risks of a laser, schedule risks, program acceptance risks with the detachments, etc.).
- (14) ODA Cdrs, ensure your detachments bring a complete hide site kit when directed by the S4. Uniform for all tests will be BDU with LBV. One large rucksack packed for an 11 day operation (minus ammunition) is require for each team for each test night.
- (15) ODA 143 is responsible to establish communications with Range Control from Range 51 during each test. Bring appropriate radios, antennas and batteries.
- (16) ODA 142 is responsible for marking the 300, 500, 750, 1000, 1250, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200 and 2300-meter line with engineer tape and stakes on Range 51. Use a laser range finder for accuracy in marking.
- (17) ODA 144 coordinate with the S3 Training NCO for an airborne operational test of the LRNVDs for 011500 Mar 01.
- (18) ODAs conduct mini Special Reconnaissance missions, 061800 161800 Mar 01, starting from a Patrol Base. The HEMMIT with mock SCUD will be mobile. ODA members pack an 11-day mission rucksack to include hide site. No ammunition will be carried.
- (19) Motor pool NCOIC coordinate for the mock SCUD missile to be loaded on a HEMMIT prior to each night's test at Range 51. Have a dedicated driver for each night's test. The HEMMIT may be "lased" frequently, coordinate with S4 to protect the driver's eyes.
- (20) Training NCO coordinate with Range Control for Range 51 for the test nights. Be prepared to coordinate for additional ranges determined by the S4. Ensure Range Control knows that lasers will be used and coordinate any safety concerns.
 - c. Phase 8 (Negotiate with Sources):
 - (1) Only the Contracting Officer in the WIPT may negotiate with the sources.
- (2) Contracting Officer will negotiate for the best price for each LRNVD and for any minor modifications (brackets, mounts, tripods) identified by the PIPT during test and evaluation. Though best-price will be negotiated, the winner will be decided upon best-value.

d. Phase 9 (Award the Contract)

- (1) The Test and Evaluation Worksheets completed by the PIPT will be used by the WIPT to evaluate and make a recommendation of the winning LRNVD to the OIPT. The WIPT will use the Weights/Point System found in Annex B.
- (2) WIPT determine a winning LRNVD and any modifications necessary. Report findings to the OIPT at Milestone 1 briefing.
- (3) Upon OIPT approval, S4 and WIPT complete DA Form 3953 (or ULLS if applicable) with RMO and electronically deliver the form to the DOC with the findings of test & evaluation. Be prepared to fill out a sole source memorandum if necessary.
- (4) Contracting Officer coordinate with S4 for debriefing information for unsuccessful LRNVD manufacturer(s). Contracting Officer should only have to debrief upon request of the unsuccessful manufacturer(s) IAW SAP.

e. Phase 10 (Administer the Contract)

(1) S4 coordinate with Contracting Officer and stay in contact with the winning manufacturer. Keep abreast of any changes that could jeopardize the delivery schedule or quality of the LRNVD. Alert OIPT and Contracting Officer if problems arise.

f. Phase 11 (Incorporate Equipment into the Force)

- (1) WIPT coordinate with Larry Phillips at the Central Receiving Point (CRP)(967-5429) to be alerted when LRNVD(s) arrives. Go to the CRP and conduct an acceptance inspection. If problems are detected do not sign for the LRNVD and immediately notify the OIPT and Contracting Officer.
- (2) WIPT bring LRNVD(s) to property book officer and have the HSC Supply Sergeant sign for them on HSC's hand receipt.
- (3) PIPT conduct a field test of LRNVD(s) within 72 hours of delivery. Utilize the same standards as the test and evaluation conducted on Range 51. Ensure that the enemy's Generation I, NVD is used to try and detect the laser of the LRNVD (if applicable).
- (4) PIPT coordinate with WIPT and execute LRNVD familiarization training for 2nd Battalion.
 - (5) WIPT keep LRNVD(s) secured in the Arms Room when not being used for training.
- (6) WIPT execute the system to track the useful life of each of the LRNVD(s). Ensure the arms room sergeant can effectively manage that system and the maintenance program.
- (7) WIPT modify (if needed) the equipment replacement/disposal plan submitted during Phase 7 to reflect the characteristics of the operational LRNVD.

Page 7 of 10

g. Phase 12 (Execute the Equipment Replacement & Disposal Plan)

- (1) WIPT inform the OIPT when it is time to execute the equipment replacement/disposal plan. Ensure this is done early enough so that if needed another 12-Phase Acquisition Process (for a replacement LRNVD) can be in Phase 11 before the end of the useful life of the used LRNVD(s).
- (2) WIPT ensure all HAZMAT and other applicable Federal and State laws are followed with regard to the LRNVD(s) disposal.

8. DISTRIBUTION:

Group Commander	1ea	Bn S3	1ea
Group RMO	1ea	Bn S4	1ea
Group S4	1ea	Bn Training NCO	1ea
Group JAG	1ea	HSC CDR	1ea
Group Force Mod	lea	A/B/C CDR	lea
Group PBO	1ea	A/B/C CSM	1ea
Battalion Commander	lea	ODA 144/43/42 CDR	1ea
Bn CSM	1ea	Motor pool NCOIC	1ea
Bn XO	1 ea	Contracting Officer DOC	1ea

JOHN X. SMITH MAJ, SF Battalion Executive Officer

ANNEX A (TEST & EVALUATION WORKSHEET)

Test & Evaluation Worksheet

Test & Evaluation Worksheet
<u>LRNVD#1</u> <u>LRNVD#2</u> <u>LRNVD#3</u> <u>LRNVD#4</u> (circle the LRNVD tested)
1. What is the Maximum range you can clearly identify the target as a SCUD launcher?meters
2. At what angle can the SCUD launcher be best identified (i.e. frontal view, length wise, rear view, oblique, etc.)
3. Rate the LRNVD for its resistance to shatter/shock (1 below average compared to the other LRNVDs, 2 average, 3 above average)
4. Rate the LRNVD for ease of use in the hide site (1 below average compared to the other LRNVDs, 2 average, 3 above average)
5. Rate the LRNVD for tactical use in the hide site (1 more likely to give away position compared to the other LRNVDs, 2 average, 3 less likely to give away position)
6. State why the LRNVD received that rating for tactical use
7. Rate the LRNVD's design, material and craftsmanship (1 below average compared to the other LRNVDs, 2 average, 3 above average)8. What can be done to improve the design, material or craftsmanship?
9. Does this LRNVD function well with your detachment's organic equipment and tactics (does it fit well in a rucksack, does it get in the way of other equipment, how will it be packed and protected for parachute jumps)?
10. Are there small parts, screws, caps, etc. that can fall off the LRNVD (explain)?
11. Can this LRNVD be assembled and put into action in the dark?
12. What are your recommendations for this LRNVD?

Page 9 of 10

Annex B (Weights/Point System)

Points	Evaluation Criteria	LRNVD	LRNVD	LRNVD	LRNVD
Awarded		#1	#2	#3	#4
(+40)	LRNVD identifies SCUD launcher under required conditions at 2000+ meters				
(+30)	LRNVD identifies SCUD launcher under required conditions at 1751-1999 m				
(+10)	LRNVD identifies SCUD launcher under required conditions at 1501-1750 m				
(+20)	LRNVD w/ accessories and one set of batteries weighs less than 5 pounds	· .			
(+10)	LRNVD w/ accessories and one set of batteries weighs less than 6 pounds				
(-10)	LRNVD w/ accessories and one set of batteries weighs more than 6.5 pounds				
(-20)	LRNVD w/ accessories and one set of batteries weighs more than 7 pounds	<u> </u>			
(+20)	LRNVD has better than average chance of being shatter/shock resistant				
(+20)	LRNVD has better than average chance of operating after an airborne operation				
(+30)	LRNVD has a dual function that will reduce soldier's load				
(+25)	LRNVD uses a battery common to other mission equipment (AA or BA5953)				
(+20)	LRNVD response time from the off mode is less than 3 seconds				
(+30)	One set of batteries lasts 8+ hours of continuous use in LRNVD				
(+20)	One set of batteries lasts 5-8 hours of continuous use in LRNVD				
(+20)	Battery load for an 11-day mission for LRNVD is less than 1.5 pounds				
(-20)	Battery load for an 11-day mission for LRNVD is greater than 2.5 pounds				
(+20)	LRNVD performs better than average in a hide site				
(+20)	LRNVD performs better than average tactically (least likely to give location away)				
(+15)	Manufacturer has good past performance				
(+20)	LRNVD's design, material and craftsmanship is of a higher quality than the others				
(+15)	Manufacturer can meet the deadlines in the Acquisition Plan schedule				
(+20)	LRNVD has lowest estimated life-cycle cost				
(+35)	One LRNVD with all accessories is \$7,500 or less		1		
	TOTAL:				

Page 10 of 10

D. ADVANTAGES & DISADVANTAGES OF THE 12-PHASE ACQUISITION PROCESS

As with any process, the 12-Phases have both advantages and disadvantages.

1. Advantages

The 12-Phases provide the user and Contracting Officer with a roadmap of distinct phases that helps guide them logically through each acquisition. Each phase contains elements (e.g., actions, analyses, events) that help the battalion to find a best-price or best-value, minimum delay, detachment-satisfying solution.

These are the elements of the 12-Phases that help provide a best-price or best-value solution (see Table 1. Elements Providing a Best-Price or Best-Value Solution).

Elements	Best-Price or Best-Value Reasons
Documentation & Validation of Needs	Using a MNS and completing these two activities helps prevent the purchase of an unneeded item, which is never a best-value.
2. Determining & Defining Requirements	These activities provide the information to conduct Market Research and evaluate the: assets available to the battalion; CIs; and NDIs that could provide the best-price or value item.
3. RFIs	Answers to RFIs help revise the requirements to provide a best-price or value CI or NDI.
4. No "Gold Plating"	"Gold plating" the requirements usually leads to a costlier CI or NDI, which is not a best- price and often not a best-value.
5. No Specificity	Specificity often excludes potential sources from participating in a procurement. These excluded sources could have provided a best-price or best-value.

Elements	Best-Price or Best-Value Reasons
6. Challenges to Unique Requirements	Challenging unique requirements may allow a CI or NDI to provide a best-price or value solution, which is often more economical than producing a developmental item.
7. Non-material Solution	Non-material solutions generally require less funding than acquiring a new item, which makes a non-material solution a best-price solution.
8. List of Available Asset	Using an asset available to the battalion is often less costly then a new CI or NDI.
9. Analysis of Alternatives	Alternatives, even if they need modifications, are generally less expensive then purchasing CIs & NDIs.
10. Market Research	Extensive Market Research, using many Market Research tools, can provide an abundance of CIs and NDIs that meet the requirements. From these CIs and NDIs a best-price or best-value solution can emerge.
11. Economic Purchase Quantities	By using a purchase method that provides an economic purchase quantity, the battalion can acquire a best-price or value solution at an even better price.
12. Broaden the Search	A Contracting Officer and other Federal resources take the battalion's requirements and use their Market Research tools to broaden the search for best-price or best-value CIs and NDIs.
13. Risk Management Plan	This plan helps to alleviate the risks associated with the sources, the items, testing the items, procuring the items and incorporating the items. These risks can derail an acquisition process and prevent obtaining a best-price or best-value solution.
14. Requirements Flow	By using the same requirements for the solicitation, test & evaluation and award of the contract, the more likely the item acquired will fulfill the requirements and provide a best price or value solution.
15. Test & Evaluation Plan	This plan helps to test and evaluate the item and the source so that the item will indeed provide a best-price or best-value.
16. IPTs	IPTs are composed of talented individuals from different backgrounds and specialties. IPTs use the group's collective knowledge of the products and the marketplace to find a best-price or best-value item. The IPTs then use the skills of the group to test the item to ensure it will be a best-price or best-value item.
17. Maximum competition	Seeking maximum competition helps to lower the prices and increase quality, which provides a best-price or best-value item.
18. Life cycle cost & Past performance analysis	These analyses help ensure that the item sought will be the best-price or best-value.
19. Open dialog with Source	This activity allows the battalion to stay alert to and help prevent delays and quality problems with the winning source. Delays and quality problems can negate a best-price or value.

Elements	Best-Price or Best-Value Reasons
20. Inspections, Field Tests & Feedback	These activities verify that an item is a best-price or value.
21. Useful life tracking	This activity verifies that the item lived up to its stated potential and did provide a best-price or value. This information can be used for future best-price or value procurements.
22. Ongoing Feedback	This will keep all involved parties aware of the actions, progress and results throughout the process. Feedback allows the acquisition chain to know if the items tested are meeting the best-price or best-value requirements. Feedback also helps to identify best-price or best-value issues after a winning item is incorporated into the detachment. This information can be used for future best-price or best-value acquisitions.

Table 1. Elements Providing a Best-Price or Best-Value Solution (Source: Developed by Researcher).

The 22 elements work alone and collectively to provide a best-price or best-value solution. The first six are the foundation for starting an acquisition process on the right track. They help to take a need and shape it into the requirements that are balanced between being too excessive and too specific. The requirements are also fashioned so that CIs and NDIs will remain an option.

Elements seven through eleven initiate the search for a best-price or best-value item. These elements focus the user first on the least expensive solution, a non-material solution, and then work towards the purchase of a best-price or best-value CI and NDI.

Elements 12-18 help to broaden the search for a CI and NDI using tools that are not organic to the battalion. The elements then help to ensure that the CIs and NDIs found will be a best-price or best-value solution.

Elements 19-21 occur after a particular best-price or best-value CI or NDI is chosen. These elements help track and test the solution to making certain that it is a best-price or best-value.

The last element, feedback, keeps the members of the acquisition chain aware of the actions, analyses, events and progress throughout the process. This awareness allows the acquisition chain to know if the evaluated items or the winning item is meeting or has met the best-price or best-value requirements. This information can be used if the same item is considered for a future best-price or best-value acquisition.

These are the elements of the 12-Phases that help provide a minimum delayed, detachment-satisfying solution (see Table 2. Elements Providing a Minimum Delay & a Satisfying Solution).

Elements	Reasons for Minimum Delay and Satisfaction
Inclusion of detachment members	By including the detachment members to help decide on the item to acquire, the less likely the detachments will be dissatisfied with the solution.
Document & validate the Needs	These activities prevent an invalid need from initiating a full acquisition process. Reacting to an invalid need wastes time and resources and can produce dissatisfaction.
Defining & Describing the Requirements	By doing these actions correctly, the S4 and Contracting Officer of the WIPT will receive quicker and more accurate responses during Market Research and during the solicitation.
4. Early stabilization of the requirements	Stabilized requirements are easier to fulfill, while last minute changes tend to lengthen the acquisition schedule.
5. Challenging the Unique Requirements	This action may allow a CI or NDI to be selected. The result is a drastic acquisition time reduction over contracting for and producing a unique developmental item.
6. Acquisition Plan	This is the ultimate tool to efficiently schedule the proper resources and personnel for an expedient acquisition.

Elements	Reasons for Minimum Delay and Satisfaction
7. Market Research tools	A vast collection of catalogs and technical manuals, active participation with professional
	socities, subscriptions to online Market Research services, Internet search engines,
	attendance to technical displays, symposiums and trade shows. All of these tools will
	help the S4 and battalion to shorten the timeline of the preliminary Market Research,
	which will provide information quicker to the OIPT to make a Program Budget Decision.
8. Paperless handoffs	With the S4 using the Acquiline system and the CO using the Procurement Desktop II, a
	paperless and expedient DA Form 3953, solicitation, response, and contract award can
	be accomplished.
9. Off-the-shelf items	Purchasing off-the-shelf, mature designed, CIs and NDIs help expedite the acquisition
	process
10. Test & Evaluation	These actions and analyses help ensure that the risks of exorbitant life cycle costs,
	problematic quality, and source problems are reduced. All of these pathologies can lead to
	schedule slip and detachment dissatisfaction.
11. Negotiations	This event can provide more items at the same price than originally anticipated. Providing
	more of a requirements fulfilling item is a sure recipe for increasing the detachments
•	satisfaction in the process.
12. Requirements Flow	By mandating the use of the same requirements and evaluation criteria in the Test &
	Evaluation Plan, the solicitation and when awarding the contract, the chances of a
	source protests and a lengthened acquisition schedule are minimized.
13. Open dialog with Source	This event provides oversight and a quick identification of and resolution to the problems
	with the source, which helps alleviate schedule slips and detachment dissatisfaction.
4. Inspections & Field Tests	These actions and events help to uncover patent and latent defects. They also help to
	ensure that the item fulfills the requirements. By doing this, the battalion will minimize the
	chance that a detachment receives a faulty item and becomes dissatisfied.
5. Useful life tracking plan	This plan timely replaces and disposes used equipment. This timely replacement helps to
	satisfy the detachments for they will notice a concerted effort to replace and update their
	operational equipment.
6. Feedback	This will keep all involved parties aware of the actions, progress and results throughout
	the process. Keeping people informed will minimize delays and dissatisfaction when
	changes occur and will provide satisfaction by having all participants feel that they are
	an important component of the process.

Table 2. Elements Providing Minimum Delay and Satisfaction (Source: Developed by Researcher).

These 16 elements are an insurance policy to help keep delays down and detachment satisfaction high. The first eight elements start with the inclusion of those individuals who must be kept satisfied, the detachments. The elements then move on to activities and an overall process that helps prevent delays and keeps satisfaction elevated through their orderly and timely execution.

Elements nine through twelve help expedite the purchase, ensure the quality of the CIs and NDIs, and attempt to further reduce the price of those items. These elements also contribute to reducing delays and increasing the detachments satisfaction.

Elements 13-15 are conducted after a CI or NDI is chosen. These elements provide final oversight and quality assurance for the best-price or best-value solution. With these final elements, the acquisition chain can be confident that it is providing a solution that satisfies the detachments.

The last element, feedback, keeps the members of the acquisition chain aware of the actions, analyses, events and progress throughout the process. Feedback minimizes delays and dissatisfaction when changes or problems occur and provides a satisfying sense of inclusion and importance for all members involved with the process.

2. Disadvantages

The 12-Phases initially take more time to plan, more resources to execute, and more coordination than 2^{nd} Battalion may be willing to commit for an acquisition under the SAP.

The 12-Phases promote the use of many capital and human resources to evaluate the equipment (lifecycle cost analysis, test & evaluation, formal field tests, etc.).

These events are more of a Research and Development function and might distract 2nd Battalion from its core competencies.

The 12-Phases require significant coordination within each of the IPTs and between the IPTs. This coordination could add more meetings to 2nd Battalion's already busy workweek. Also, IPT membership may be viewed as an additional duty and not taken seriously by the members.

E. CHAPTER SUMMARY

The 12-Phases are a very methodical process that help to ensure a need is satisfied with an available asset or a best-price or best-value CI or NDI, in a timely manner and in a way that keeps the detachments satisfied. The process is a shell that incorporates elements from the Federal acquisition and unit regulations concerning a specific type of acquisition. By using each of the phases and filling them with the appropriate elements, the 12-Phases initially are more labor and resource intensive than just using the acquisition regulations of the SAP. However, the enormous advantages of a well-planned and executed 12-Phase process far outweigh the initial outlay of time and resources.

III. THE ACQUISITION PROCESS OF 2ND BATTALION

A. INTRODUCTION

As stated in Chapter I, the Battalion Logistics Officer (S4) is responsible to establish or maintain an effective acquisition process that acquires a best-price or best-value item, minimizes delays, and keeps the detachments satisfied. The S4, a Company Commander, a Supply Sergeant, and detachment members from 2nd Battalion were interviewed to determine what activities occur in their acquisition process and how thoroughly they are conducted. Additionally, key peripheral individuals were also interviewed to help provide an outside look at the battalion's process. The questionnaire used is found in Appendix B and is based on the pertinent elements of the 12-Phases.

This chapter provides a model and a phase-by-phase explanation of 2nd Battalion's acquisition process based on the interviews. Also included is a discussion on the three purchasing methods available to the battalion.

B. A PHASE-BY-PHASE EXPLANATION OF 2ND BATTALION'S ACQUISITION PROCESS (THE PRACTICE)

Each quarter 2nd Battalion's S4 and operations section (S3) distribute nearly 100% of that quarter's sustainment and training funds to the battalion's three companies, who then pass the funds down to the fifteen detachments. This dispersal of funds, coupled with a decentralized needs, requirements, and equipment selection approach, allows the detachments and Company Commanders "great flexibility, autonomy, and economy" to decide how much to spend and what type of equipment item is right for the detachment (Jackie, 2001). The detachment members interviewed also enjoy the control given by the battalion's process. "We war game during our analysis, take a hard look at what our

requirements are [operational and support tasks], what are our needs, what we have, and then go out and buy from outdoor [equipment] stores, have tailor shops modify our gear, whatever we need" (Brown, 2001).

The experience level on a detachment is vast for a twelve-man element. Detachment members are senior sergeants and mid-grade officers with years of experience in the conventional Army and in Special Forces. Each member has a unique specialty (e.g., engineering, weapons, communication, medical, intelligence gathering) that makes the detachment robust and, to some extent, its own integrated product team (IPT)(Franklin, 2001). In addition, most detachments have an assigned team specialty such as extreme cold weather, maritime, or underwater operations. Most members are avid outdoorsmen who often spend their weekends hunting, camping, or rock climbing. Their specialties and recreational activities motivate them to keep up with "the latest high speed equipment" on the commercial market. This equipment often relates specifically to their Special Forces mission (Shubel, 2001).

It is not uncommon to walk into a detachment's team room and observe the members "combing through catalogs and magazines looking for gear or jerry-rigging their issued equipment to meet their [mission] needs" (Shubel, 2001). This informal, ongoing Market Research, coupled with a knowledge of what works in the field, is represented as a continuous event in the model developed to represent 2nd Battalion's acquisition process (see Figure 5. 2nd Battalion's Acquisition Model).

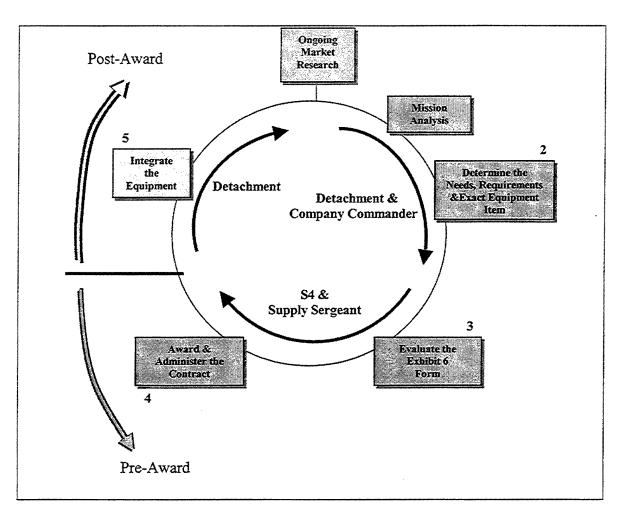


Figure 5. 2nd Battalion's Acquisition Model. (Source: Developed by Researcher)

2nd Battalion's Acquisition Model identifies the Pre-Award Phases, which the detachment and Company Commander are deeply involved with the first two, and the Post-Award Phase, where only the detachment is engaged. Phases 3 and 4 are where the S4 evaluates the equipment request and authorizes the Supply Sergeant to purchase the equipment item and monitor its delivery.

1. Phase 1 (Mission Analysis)

During Mission Analysis, which generally occurs a month to a few days before the mission, a detachment determines its operational and support tasks from its Operation Order and by using the Special Forces Operational Detachment Alpha (SFODA) Concept Brief and Brief Back Format as a guideline (Franklin, 2001). Together these formats help focus the detachment on areas such as specified and implied tasks, mission essential tasks, available assets, and constraints. Additionally, the formats require the detachment to evaluate the composition, disposition, morale, movement, strengths, weaknesses, and combat capabilities of the enemy (2nd Battalion FSOP, 2000, section E-4-A-2).

Each area evaluated by the detachment is listed on poster paper and hung in the planning room for all members to view and internalize (Brown, 2001). This display of the detachment's Mission Analysis also allows the Company Commander and battalion staff members, such as the S4, to quickly examine the detachment's progress and ensure each area is fully considered. Both the Company Commander and staff members frequently visit the detachment during their analysis and assist with planning and any information gaps.

A member from a non-deploying detachment, known as an AST, is assigned to the detachment to assist the detachment during their Mission Analysis and to be another interface between the detachment and the staff. The AST also helps evaluate the detachment during their mission rehearsals, which are based on their Mission Analysis.

Overall, the analysis is thorough, sometimes lasting days, and the end results are two briefings to Battalion Commander, Company Commander and the battalion staff. The briefings must demonstrate the detachment's detailed understanding of the mission, or the detachment does not deploy (2nd Battalion FSOP, 2000, E-4-A-1).

Major Jackie, Bravo Company Commander summed up the detachments' Mission Analysis process in these words. "Informally, through give-and-take [conversations], and formally through the detachments' written assessment and Brief Back, I'm absolutely certain in their [the detachments] tactical analysis" (Jackie, 2001).

Revealed by the interviews, however, was one element of information not provided to the detachments. A Logistics Estimate⁵ is supplied by the S4, but it does not include a consolidated list of all mission equipment items available to the battalion.

2. Phase 2 (Determine the Needs/Requirements/Exact Equipment Item)

Once a detachment determines a deficiency in its current capability, the members use their collective skills and experience to find a solution to the need (Jackie, 2001). A Mission Need Statement (MNS) is not used to consider all the circumstances that brought about the need. However, most detachments closely review their terrain analysis and enemy situation and ask themselves "What are our tactics? What are we up against? Can we get closer to the target or change what we are doing?" (Brown, 2001). If this search for a nonmaterial solution provides no reasonable answer, then the detachments search for an asset available to the battalion. If an asset is not found or known, then the detachments turn to acquire an NDI or CI6.

The research tool primarily used to find a nondevelopmental item is the Unit Level Logistics System (ULLS) located in the Company Supply Sergeant's office (Ray,

⁵ A Logistics Estimate provides logistical information on the area of operations, a consolidated list of equipment assets available to the battalion from sources like JOS, the Group Arms Room, USASFC, and NATICK labs, and environmental information that could also be useful in determining needs. Additionally, the Logistics Estimate can cross reference information provided by the Battalion Intelligence Officer on enemy assets, for this information can often be instrumental in determining needs.

⁶ Those interviewed could not say with certainty if an NDI was sought before a CI or how much detachment effort was applied to the NDI search.

2001). This computer system requires the detachment to know the National Stock Number (NSN) of the equipment desired to search the database. If the detachment does not have the NSN for a specific equipment item, the research involved with the ULLS could take days or longer. Also, if the detachment does not have a specific piece of equipment in mind, but is trying to find an item in terms of the need (mission, objective, general capabilities), the search becomes "pretty hard to do with the ULLS, because the ULLS doesn't list those characteristics" (Ray, 2001).

When asked what other recourse a detachment could pursue for a nondevelopmental item, the Bravo Company Commander stated, "the detachments could contact a smart, high level, GS (Government Service) civilian at USASFC, but I don't think they do that" (Jackie, 2001). Indeed, when the Deputy Chief of Staff for Acquisition and Contracting at USASFC was contacted, he confirmed that his office was ready to help any detachment with their needs and research, but not many ever call (Dixon, 2001). The DOC on Fort Lewis could also search their Government databases for an NDI, but detachments seem unaware or unwilling to use this resource. "I've put out the word to SF (Special Forces) and the Rangers on post that we're [the DOC] ready to assist, and we'd like to get involved with those units because their requirements are out of the norm, but they [the units] are so tightly knit that I don't think they want outsiders to help" (Dove, 2001).

With a nonmaterial solution unfeasible, assets available to the battalion not conveniently listed, NDIs hard to explore with the ULLS or NDI resources not used, the detachments "usually choose to purchase a commercial [item]" (Jackie, 2001). When asked how the detachments determine, describe and record their requirements to facilitate

a search for the CI, the responses gained from the Company Commander, Supply Sergeant, and detachment members were vague. It seems that the requirements are not always presented in terms of mission, objectives and general capability, but usually as an exact piece of equipment the detachment desires. Upon further questioning, it became clear that needs, requirements and the exact item are often intertwined and with no clear distinction as described in Chapter II. This, however, did not seem to impact the purchase of a CI, for Major Jackie stated "prior to a [significant] purchase the B-team (the Company Commander and his staff) reviews the request (Exhibit 6 Form) and its background [needs and requirements] with the Detachment Commander" (Jackie, 2001). If the B-team is not satisfied that the equipment will fulfill the detachment's need then it is not approved. Though reviewing the Exhibit 6 Form with the Detachment Commander works for the B-team, the Exhibit 6 Form, when passed to the S4 for approval, provides meager information for the S4 to evaluate (Franklin, 2001).

3. Phase 3 (Evaluate the Exhibit 6 Form)

The Exhibit 6 Form has five parts for the detachment to complete. The detachment fills in the exact equipment item sought with its catalog number, the quantity desired, the total price, the source with a phone number and a point of contact. There are then three signature blocks for approval, one for the Company Commander, S4, and Property Book Officer (PBO)7. Needs and requirements that the exact item must fulfill are not listed on the Exhibit 6 Form, so when the form reaches the S4, he has little information to evaluate and compare with other items that could provide a better price or

⁷ The PBO does not evaluate whether the item requested is best-price or best-value, nor is he overly concerned with delays or detachment satisfaction with the item. The PBO's responsibility is to assign the equipment item a classification code (expendable, durable or nonexpendable) for accountability.

value, other sources that could deliver an item quicker, or whether the item will in fact satisfy the detachment's need.

With little to go on, the S4 could backtrack the process and query the Company Commander and detachment about the basis for the exact equipment item, but this isn't often done for three reasons. First, the Company Commander, a senior officer to the S4, has discretion over his company's funds and has already authorized the purchase. Second, the S4 was once a Detachment Commander and knows that the detachments usually do a thorough job linking the item requested to their needs (Franklin, 2001). Finally, the S4 is not given a Mission Need Statement (MNS), statement of requirements (SOR), nor can he always remember how the exact equipment item is linked to the poster paper evaluations done by the detachment during their Mission Analysis (Franklin, 2001). To try and locate these items, which may not have been completed or were discarded, would take too long (Franklin, 2001).

The evaluation the S4 does provide is threefold. He first determines if the equipment item requested is authorized under the purchase rules using the Governmentwide commercial purchase card (GCPC). Primarily he ensures the total price is under the \$2,500 limit and that the item does not contain hazardous material (HAZMAT) (Franklin, 2001). Second, he judges, using the few catalogs in his office, whether there is a less expensive source for the exact item. Finally, he considers whether there is an asset available to the battalion that will suffice. The last consideration is often difficult to systematically conduct, since the S4 does not know the exact equipment requirements and he also does not have a consolidated list of equipment available to the

battalion (Franklin, 2001). The S4 then validates the equipment request by signing the Exhibit 6 Form, which completes his evaluation.

4. Phase 4 (Award & Administer the Contract)

The Exhibit 6 Form is then passed to the Company Supply Sergeant who calls or visits the equipment source, confirms that the item is in stock, inquires about military discounts, and confirms that no sales tax is charged. The Supply Sergeant then purchases the item using his GCPC. If the item is to be delivered, the Supply Sergeant receives a confirmation number to track the delivery. When the item arrives at the Supply Sergeant's office, he coordinates with the PBO for the item's classification number and enters it on the property book. The Supply Sergeant might do a cursory acceptance inspection, but usually leaves that up to the detachment (Ray, 2001). The Supply Sergeant then issues the equipment item by hand receipt to the detachment for integration.

5. Phase 5 (Integrate the Equipment into the Detachment)

Though the use of the Exhibit 6 Form and GCPC is expedient, often the equipment item can only be ordered a few weeks or days before the detachment deploys. The reasons for this vary, but the two primary ones are detachment passivity and availability of the funds (Jackie, 2001). Though most detachments know what they want months ahead of their deployment and prepare the proper paperwork, some detachments wait till the last minute or have a last minute change. Funds, though normally available at the beginning of the quarter can sometimes be held up, slowing the acquisition. These reasons, when they exist, afford little time for the detachment to field-test their new

⁸ Sales tax on a Government purchase is not acceptable. Sources must agree to not charge a sales tax.

equipment item prior to their deployment. Additionally, detachments do not compose an Acquisition Plan, which could help them forecast test and evaluation dates and resources (such as a training areas) for their new equipment item (Brown, 2001). The S4, when questioned about new equipment integration, did not know when or exactly how each detachment accomplished this task (Franklin, 2001). There is also no known useful life tracking plan and equipment replacement/disposal plan for the equipment items purchased (Jackie, 2001). The S4 believed that the detachments probably just initiated another Exhibit 6 Form when the item they have "is worn out or broken" (Franklin, 2001). Also, the S4 did not always know if the equipment provided satisfied the detachment's needs, for the only time he receives feedback "is when a detachment member knocks on my door and lets me know" (Franklin, 2001). When asked how often this happened the S4 responded "from time to time" (Franklin, 2001).

C. PURCHASING METHODS

2nd Battalion can utilize three purchasing methods for acquiring CI and NDI equipment items. A synopsis is provided on each method's basic procedures, frequency of use, and each method's contribution to providing a best-price or best-value item, minimizing delays and satisfying the detachments.

1. Governmentwide Commercial Purchase Card (GPCP)

As described in the battalion's phase-by-phase model, once an Exhibit 6 Form has been properly completed and the Approving Official (S4) has authorized the purchase, the GCPC holder can purchase equipment items up to \$2,500. The GCPC is the battalion's most widely used method to fulfill the detachments equipment requirements.

As stated by Major Jackie, the battalion's acquisition process, which the GPCP is an integral part, offers great "flexibility, autonomy, and economy" (Jackie, 2001). Looking at his words closer, the flexibility is accomplished because any merchant system that accepts the VISA card can also accept the GCPC (GSA, 2001, p. 5). This expedient, credit card, purchase provides a commercial item with minimum delay (instantly to four days on average). Autonomy is given to the detachments by allowing them to determine their needs, requirements, and the exact commercial equipment item. This satisfies the detachments because they receive exactly what they desire. Economy, however, is questionable. There is an economy of time, but economic purchase quantities, which are discussed in Chapter IV, may elude the GCPC method.

2. Unit Level Logistics System (ULLS)

A detachment determines its requirements and, through Market Research, finds a nondevelopmental item (NDI) to fulfill those requirements. The detachment then provides a memorandum, listing the item's National Stock Number (NSN), to the Supply Sergeant, who orders the item through the ULLS. If the item is in stock and a priority delivery code is used, the item can be provided in approximately two weeks (Ray, 2001).

The detachments occasionally use this purchase method to supply their equipment items. Economy is offered only if meticulous Market Research reveals that the NDI provides a best-price or best-value. As discussed, Market Research is often difficult with the ULLS for two reasons. First, if the detachment knows the type of item desired, but not its NSN, the research to find its NSN could take days (Ray, 2001). Second, the ULLS does not discern the capabilities of its items, which prevents the detachment from comparing the ULLS items with the requirements. However, by using the ULLS, the

detachment or company is not constrained to a \$2,500 limit like the GCPC, so economic purchase quantities can be achieved.

Delays are systemic with the ULLS. As mentioned, there are delays if the NSN of an NDI is not known and delays caused when attempting to determine the capabilities of an ULLS listed item⁹. Additionally, an item ordered could be redirected to another unit that has a higher priority (Ray, 2001). Detachment members interviewed were not as satisfied with the ULLS when compared with the GCPC.

3. DA Form 3953

As described in the example of the 12-Phases (Chapter II), once an item has been determined the best-price or best-value, the detachment works with the S4 and electronically completes a DA Form 3953. Information required for this form is similar to an Exhibit 6 Form. Additionally, there is a comments section where the detachment lists the requirements of the equipment item and the preliminary Market Research. The DA Form 3953 is emailed (via Acquiline) to the RMO, who ensures the funds are available, electronically enters a fund site, and emails (via Acquiline) the form to a Contracting Officer at the DOC. If needed, the S4 telephonically coordinates with the Contracting Officer to clear up any issues with the form. With the requirements and preliminary Market Research indicated on the DA Form 3953, the S4 and Contracting Officer have the information necessary to quickly broaden the Market Research and attempt to find a better-price or better-value item.

⁹ To determine the capabilities of an ULLS item, the detachment or Supply Sergeant first obtains the phone number of the item's manager. Contacting the Item Manager can be difficult depending on what time zone s/he is located (there is no round the clock "sales assistant" available to answer questions). Once the Item Manager is reached, s/he may not have a working knowledge of the item they stock. Additionally, if the detachment's requirements are not defined or described in terms the Item Manager understands (Phase 4 of *The 12-Phase Acquisition Process*), communication difficulties could cause further delays.

2nd Battalion has explored this purchase method¹⁰ only once in the last 18 months and it provided timely, successful, modifications to a number of protective mask covers (Connor, 2001). The reasons the DA Form 3953 is not used more frequently are examined in Chapter IV.

Delays are also minimal. If the level of preliminary Market Research that the detachment annotated on the DA Form 3953 satisfies the Contracting Officer, he can immediately use his GCPC (which has a \$25,000 single item purchase limit) and have the item normally delivered within a week (Dove, 2001). For items that are from \$25,000 to \$100,000, the Contracting Officer has a mandate to complete the contract within a month, but can do it sooner "if it's a short fused requirement and I have a habitual relationship with them [the unit]" (Dove, 2001).

Satisfaction with the DA Form 3953 and the product it delivered was high, because "the one time we used it, it worked well...[the modification] turned out to be a better than [the] expected [price]...the turn around time was pretty good too, about 10 days" (Connor, 2001).

D. CHAPTER SUMMARY

In 2nd Battalion's acquisition process, the detachments: conduct their Mission Analysis with the information provided by the battalion staff; determine their needs using their poster paper products; determine their requirements and share them with the B-team; rely on their members' and B-team's collective experience, unique specialty skills, and the Market Research tools in the company to find a solution; chose a solution that is

¹⁰ The method, however, did not use the paperless Acquiline system, instead the DA Form 3953 was transferred between participants in a hardcopy (paper) form.

believed to be a best-price or best-value equipment item; purchase that item in an accustomed manner; integrate that item at their own discretion; and provide feedback periodically. The process also exclusively incorporates multiple paper-based handoffs throughout the acquisition chain.

The detachment's members interviewed are satisfied with the autonomy and flexibility of this decentralized process, but there is agreement among the past and present S4 that improvements could be made to the battalion's overall practice (Monroe, 2001)(Connor, 2001)(Franklin, 2001).

IV. ANALYSIS OF 2ND BATTALION'S PROCUREMENT PROCESS

A. INTRODUCTION

There has been a considerable turnover of S4s in 2nd Battalion, three in the last 18 months. The turnover was not due to poor performance, but simply the Army's rotational system of soldiers to new duty stations. This constant flux and short tenure, however, prevented the S4s from innovating the battalion's acquisition process (Conner, 2001). Instead, each successive S4 was forced to use the process he inherited save a few minor changes.

Soon 2nd Battalion will have a fourth S4, whose timeline at that post will be considerably longer, which will provide him an opportunity to analyze the battalion's acquisition process and implement significant changes. This chapter provides the future S4 with a jumpstart analysis, assistance to uncover inherent problems and shortfalls with the battalion's process, and solutions based on the elements of the 12-Phases.

B. COMPARISON OF THE PROCESSES

A table is provided listing the pertinent elements for each of the 12-Phases identified in Chapter II. 2nd Battalion is then scored on whether its acquisition process has a similar element and achieves the same result. The scoring is as follows:

- X 2nd Battalion has a similar element and achieves the same result
- / 2nd Battalion has a similar element but does not achieve the same result
- 0 No similar element exists

If 2nd Battalion is not scored an "X" then the reasons are discussed.

SCORE CARD		
12-Phase Elements (actions, analysis & events)	2 nd Battalion's	
	Score	
Phase 1 (Mission Analysis)		
The battalion staff provides comprehensive information for the detachment's Mission Analysis	/	
2. The staff members are present for the Mission Analysis and help identify the detachment's operational and support tasks	X	
3. The detachment's tactics, training, and equipment are assessed against the enemy's tactics, training and equipment.	X	
RFIs are submitted if information gaps are encountered.	X	
Phase 2 (Determine the Needs; lack of a Capability or an Opportunity):	· · · · · · · · · · · · · · · · · · ·	
5. A need is determined to improve an existing capability, establish a new operational or support capability, or exploit an opportunity to reduce cost or enhance performance.	X	
6. The need is expressed in terms of mission, objectives, and general capabilities and a Mission Needs Statement (MNS) is used to record the need so that all factors surrounding the need (e.g., threat, environment, shortfalls, constraints) are fully considered.	1	
7. Once a need is documented it is then validated and the detachment's next step is to solve the need with a non-material solution or an asset available to the battalion.	1	
Phase 3 (Determine the Requirements of the Equipment):	400	
B. Requirements are written in terms of the functions to be performed, performance required, or essential physical characteristics.	0	
9. With these initial written requirements, preliminary Market Research is accomplished expeditiously hroughout the acquisition chain.	1	
O. Preliminary Market Research is done through personal experience, industry contacts, catalogs, rade associations, the Group Force Modernization Officer's resources, the USASFC website, internet search engines, and many other Federal and commercial resources.	1	
Phase 4 (Define & Describe the Requirements):		
The description of a detachment's requirements contain sufficient detail for potential sources of CIs IDIs to know which item they manufacture or have in inventory might satisfy the requirements.	1	

Phase 8 (Negotiate with the Sources):	I
a nase o (regonate with the Sources):	
24. An aggressive Contracting Officer in the battalion's WIPT negotiates a price that is better than the	0
advertised price, which allows the detachment to purchase more items or save a portion of its resources	
25. The price for modifications is negotiated so the detachment does not pay an unreasonable price	0
for the modification work.	-
Phase 9 (Award the Contract):	
(
26. The battalion's OIPT and Contracting Officer ensure that the requirements revised and submitted in	0
Phase 4 and used to evaluate in Phase 8, are the basis for the decision in this phase.	
27. The S4 uses electronic means to expedite the purchase and the Contracting Officer uses the	0
Procurement Desktop II to complete the paperless transaction.	0
2 textop is to complete the paperioss transaction.	
Phase 10 (Administer the Contract):	
28. The S4 maintains contact with the winning source and alerts the Contracting Officer to	0
problems affecting the delivery or quality of the winning item.	
29. The Contracting Officer addresses the problem by contacting the source and demanding an	0
explanation, possibly requesting consideration, or as a last resort terminating the contract.	U
Phase 11 (Incorporate the Equipment into the Force):	
30. When the item arrives it is inspected by the S4 or other members of the battalion's WIPT for patent	1
defects or revised requirement shortfalls.	,
31. If the item passes the acceptance inspection, the item is put on the property books and the	/
PIPT conducts a field test to uncover latent defects and revised requirements shortfalls.	
32. The Contracting officer handles problems identified by the field tests.	•
and containing officer manager problems identified by the field tests.	0
33. If no problems exist, the item is integrated through a deliberate train-the-trainer or similar	0
program and a useful life-tracking plan is incorporated.	
Phase 12 (Execute the Equipment Disposal Plan):	
	ĺ
34. The useful-life tracking plan incorporated allows enough lead-time to have, if necessary, a	0
replacement item in Phase 11, of the 12-Phases, prior to the end of the useful life of the used item.	-
35 The hattalian's WIPT makes contain that all harvards a second of the	77
	X
5. The battalion's WIPT makes certain that all hazardous material (HAZMAT) regulations and other pplicable Federal and State laws are followed with regard to the disposal of the used item.	X

Table 3. Scorecard (Source: Developed by Researcher).

1. Phase 1 - Mission Analysis (Item 1)

From Table 2, Item 1 addresses the battalion staff providing comprehensive information for the detachment's Mission Analysis. The score indicates that 2nd Battalion has a similar element but does not achieve the same result. There is one important component to the comprehensive information that is missing. The Logistics Estimate provided by the S4 does not have a consolidated list of all equipment assets available to the battalion. This list is important because it provides the only quick and thorough means for the detachment to analyze the available equipment against the enemy's tactics and equipment. Without this list, which should include the weight, range, battery usage, and other important mission characteristics and capabilities for each equipment item, the detachment either has to make decisions without complete information or has to submit countless RFIs. These uninformed decisions could put the detachment in unnecessary peril, while the writing and responding to RFIs wastes precious time for the detachment and staff.

2. Phase 2 - Determine the Needs (Item 6)

From Table 2, Item 6 addresses expressing the need in terms of mission, objective, and general capabilities. It also discusses recording the need on a MNS so that all factors surrounding the need are fully considered. From the interviews, one can determine that the detachments sometimes state their needs as requirements or as an exact equipment item. This seemingly subtle word choice does not achieve the same result, as indicated by the score.

An example of this incorrect word choice and its results is, a detachment states "We need a thermal device to see a target exactly 1500 meters away in 0-100%

illumination". Stating this need as an exact equipment item (thermal device) and as a requirement (to "see") the detachment could be excluding options like a non-material solution, a NVG (light intensifying device), a seismic sensor, or a listening device that could also identify a target. In addition, stating the exact distance of 1500 meters can exclude an option that identifies a target at 1400 meters. Excluding options limits the pool of choices and this decreases the chance of acquiring a best-price or best-value solution. The correct way to state this need is "We need to identify a target approximately 1500 meters away in 0-100% illumination".

Though a MNS is not used by the detachment, it is apparent that the functions of the MNS are extensively covered in the detachment's numerous poster paper analyses and briefings provided to the battalion. The MNS, however, would consolidate all of these analyses and briefings into a stand-alone document that would be easier to validate by the detachment, the Company and Battalion Commander, and the staff.

3. Phase 2 - Determine the Needs (Item 7)

From Table 2, Item 7 addresses solving a need with an asset available to the battalion. The score given indicates the battalion's method does not achieve the same results as having a consolidated and comprehensive list of all its available assets.

The battalion's method starts with the detachment submitting an RFI. Then there is chaotic search to determine if an asset exists and where it is located among the many storage areas. Finally, the asset is tested to determine if it will fulfill the need and then delivered to the detachment. If there exists an asset, but no one knows of it (a likely possibility with new staff members), or if the asset cannot be found, then the detachment must purchase a CI or NDI.

A consolidated list of assets that includes their capabilities and location would reduce delays for everyone involved in the process. This timesavings provides the detachment a greater opportunity to rehearse with the asset, which is crucial since the Mission Analysis is often just days before the mission. An available asset would also preserve the battalion's funds, since that item would not have to be purchased, unlike a CI and NDI.

4. Phase 3 - Determine the Requirements (Item 8)

Table 2, Item 8 addresses requirements that are written in terms of functions to be performed, performance required, or essential physical characteristics. The score given indicates that 2nd Battalion does not have a similar element in its process. This is because the detachments usually do not write their requirements and, in whatever medium used, the requirements are often stated as an exact equipment item. By not writing the requirements, only the detachment members who have accurately memorized the requirements will be able to effectively perform the preliminary Market Research. This diminishes the scope of the search that can be performed and a best-price or best-value item may remain elusive. Additionally, Market Research mistakes can be readily made with memorized requirements, which could lead to delays and dissatisfaction.

With the requirements stated as an exact equipment item, the pool of potential solutions diminishes, yielding fewer choices, and possible causing the best-price or best-value solution to be excluded.

5. Phase 3 - Determine the Requirements (Item 9)

Table 2, Item 9 addresses Market Research that is done expeditiously with the written requirements throughout the acquisition chain. The score indicates that 2nd

Battalion has a similar element but does not achieve the same result. The requirements, though usually unwritten, are shared amongst the detachment and the B-team, but not often presented to anyone else. By not sharing written requirements outside of the B-team, the resources of the S4, Force Modernization Officer, USASFC, Natick labs, and other sources may never be realized. This limited search reduces the chance that the best-price or best-value item will be found.

6. Phase 3 - Determine the Requirements (Item 10)

Table 2, Item 10 addresses the breath of the preliminary Market Research. The score indicates that 2nd Battalion has a similar element but does not achieve the same result. The detachment and B-team use catalogs, the Internet, word of mouth, and visit outdoor stores, but do not usually expand their research beyond these tools to include trade shows, symposiums, contacting Item Managers, and calling Natick Labs, USASFC or other organizations. The result is that this limited Market Research becomes the basis on which the detachment makes its decision and purchases an item. Again, by limiting the choices, the less likely a best-price or best-value CI or NDI will be acquired.

7. Phase 4 - Define the Requirements (Item 11)

Table 2, Item 11 addresses describing the CI or NDI in sufficient and appropriate detail so that a commercial or Federal source will know if they have a requirement-fulfilling item in stock. The score indicates that 2nd Battalion has a similar element but does not achieve the same result.

Detachments do not have any training on how to provide a detailed description of their requirements. Eventually, after some give and take through conversations with the sources, the details come out, but this takes time and is limited to verbal communication.

Emails and faxes cannot be effectively used if appropriate details are not included, which detracts from expanding the Market Research.

8. Phase 4 - Define the Requirements (Item 12)

Table 2, Item 12 addresses eliminating military jargon, ambiguous terminology, "gold plating", and specificity. The score indicates that the detachments likely do not do this while defining their requirements and when communicating them with sources. The outcome is that the detachment may not receive an item that will fulfill its needs, may pay for a capability that is unnecessary, or be so specific that sources with the best-price or best-value CI or NDI may not be considered.

9. Phase 4 - Define the Requirements (Item 15)

Table 2, Item 15 addresses the enlistment of a Contracting Officer to ensure that the requirements are defined correctly (revised requirements). The score indicates that 2nd Battalion does not draw on a Contracting Officer's experience and business skills to help craft the revised requirements by eliminating military jargon, ambiguous terms, "gold plating," and specificity. This exclusion of a Contracting Officer also discounts the many tools that can be used to conduct a detailed Market Research, which can provide the detachment an economic purchase quantity.

10. Phase 5 - Acquisition Planning (Item 16)

Table 2, Item 16 addresses the establishment of an Acquisition Plan to coordinate all personnel involved with the acquisition. The score indicates that 2nd Battalion has a similar element but does not achieve the same result.

2nd Battalion's acquisition plan is informal and normally there is no coordination above the B-team level. This informal plan often does not consider risk management, a thorough test and evaluation plan, the benefits of extended IPTs, lifecycle costs, and an

equipment replacement/disposal plan. All of these pathologies have caused problems more than once with the equipment acquired. An example of what happens when an Acquisition Plan is not formal and does not include an extended IPT is the battalion's purchase of a commercial ground positioning system (GPS) for detachments to use when they are evading the enemy.

The commercial GPS acquired can fit in the pocket of a soldier, so if the soldier were separated from his equipment he would still have a means to effectively navigate to an extraction point. The only problem is that the commercial GPS does not accept the encrypted satellite code that might be used during time of war. Consequently, the GPS works fine during peacetime training, but may be useless when it is really needed. Those who had knowledge of the commercial GPS purchase did not consider this possibility, nor did they include in their IPT a specialist who could have determined if the encrypted code would be used.

11. Phase 5 - Acquisition Planning (Item 17)

Table 2, Item 17 addresses the products that evolve from the Acquisition Plan to include a solicitation plan, a test and evaluation plan, a milestone decision plan, an integration plan, and an equipment replacement/disposal plan. The score indicates that 2^{nd} Battalion has a similar element but does not achieve the same result.

As stated previously, the detachments do not compose a formal Acquisition Plan. Often the test and evaluation of the sample equipment items is ad-hoc and uses the memorized requirements. Also, equipment integration is not planned and listed on the training schedule, but is fit in if time allows. Additionally, the equipment replacement and disposal plan is rudimentary and is based on when the equipment breaks or is worn

out, rather than when the equipment is reaching the end of its useful life. Because of this, under tested equipment may be selected for purchase, detachment members may not be thoroughly trained on the equipment prior to their deployment, and equipment that has reached its useful life may still be used because it does not look worn out or broken. These problems can place the detachment in unnecessary peril and can cause enormous dissatisfaction with their item and the battalion's acquisition process.

12. Phase 5 - Acquisition Planning (Item 18)

Table 2, Item 18 addresses the consideration of a purchase method based on expediency and economic purchase quantities. The score indicates that 2nd Battalion does not consider the economic purchase quantities that can be gained by the DA 3953 Form or ULLS purchase methods. Instead, the battalion uses the Exhibit 6 Form/GCPC method and conducts multiple micro purchases of the same item for different detachments. The Exhibit 6 Form/GCPC is considered easier and quicker to deliver an item than consolidating the requests, having the S4 involve the RMO and a Contracting Officer, and filling out a DA3953 Form. Unfortunately, if the economic quantity is above the \$2,500 threshold of the GCPC, then 2nd Battalion does not capitalize on the savings that the DA3953 Form and consolidation could provide. ULLS use and its potential to provide an economic purchase quantity is also shunned because of its complexities with Market Research and its slower delivery of a product. Overall, 2nd Battalion does not factor in the economic purchase quantities when choosing a purchase method and this leads to acquiring an item quicker, but possibly not achieving a best price.

13. Phase 6 - Solicitation Phase (Items 19 & 20)

Table 2, Items 19 & 20 address the actions taken by a Contracting Officer concerning the solicitation of offers. The score given indicates that 2nd Battalion does not have a similar element in its process and does not benefit from the broad exposure of its requirements to the commercial market. Instead, 2nd Battalion relies on searching earnestly for a source, when it can have a Contracting Officer post its requirements in the form of a solicitation and draw the sources to the bidding and negotiation table. With more sources comes increased competition, resulting in lower prices and a higher quality product.

14. Phase 7 - Evaluate the Equipment and Sources (Items 21, 22 & 23)

Table 2, Items 21, 22 & 23 address the battalion's Program Integrated Product Team (PIPT) reducing the risks to the acquisition by testing the sample items, while the Contracting Officer evaluates the sources. The score indicates that 2nd Battalion has a similar element but does not achieve the same result.

Testing of sample equipment items is done informally by the detachments if time permits and evaluation of sources is done by word of mouth between the detachments, which can help an inquiring detachment to steer clear of an unreliable source. The results of these activities, however, do not achieve the same thoroughness as a deliberate test that includes the written and revised requirements and using a Contracting Officer who has a database concerning the sources' past performance (e.g., reliability, ethical practices, financial security, technical competence to perform modifications). By not formally evaluating sample items against the revised requirements and not conducting detailed evaluation of the sources, the detachment's acquisition can include undue risks.

15. Phase 8 - Negotiate with the Sources (Item 24)

Table 2, Item 24 addresses the element of a Contracting Officer negotiating for a price that is better than the advertised price. The score indicates that 2nd Battalion does not have a similar element and usually must pay the catalog price for an item. By not including a Contracting Officer to negotiate, the detachments are not likely to achieve a best-price or best-value solution.

16. Phase 8 - Negotiate with the Sources (Item 25)

Table 2, Item 25 addresses the element of a Contracting Officer negotiating a reasonable price for a modification to a CI or NDI. The score indicates that 2nd Battalion does not have a similar element. Without an authorized and experienced negotiator, 2nd Battalion can be overcharged for even a simple modification. Additionally, through a Contracting Officer, the source is held accountable for his modification work. The detachments do not receive these same assurances when they modify their own equipment, which can inadvertently decrease the capabilities of the purchased item.

17. Phase 9 - Award the Contract (Item 26)

Table 2, Item 26 addresses the element of a Contracting Officer ensuring that the same requirements developed in Phase 4 are used for solicitations and the award of a contract. The score indicated denotes that 2nd Battalion does not correctly define and describe or write its requirements, does not have solicitations to broaden the search for sources, and does not use the assistance of a Contracting Officer. By neglecting these five areas, the requirements can inadvertently change from phase to phase resulting in a product that is far different from one that will satisfy the need.

18. Phase 9 - Award the Contract (Item 27)

Table 2, Item 27 addresses the element of using electronic means to expedite the award (purchase) of an item. The score indicates that 2nd Battalion does not have a similar element. 2nd Battalion's relies on no less than eight paper handoffs of the Exhibit 6 Form between the detachment, Supply Sergeant, Company Commander, S4, and Property Book Officer. This process wastes time and often results with a paper copy sitting on someone's desk or getting lost.

19. Phase 10 - Administer the Contract (Item 28)

Table 2, Item 28 addresses the element of the S4 maintaining contact with the winning source to monitor schedule and quality problems. The score indicates that the battalion does not conduct monitoring. This is because the battalion's primary purchase method, the Exhibit 6 Form/GCPC, requires little if any monitoring at all (save a tracking number for the shipment).

20. Phase 10 - Administer the Contract (Item 29)

Table 2, Item 29 addresses the element of the Contracting Officer handling any problems discovered by the S4's monitoring of the source. The score given indicates that this element is nonexistent in 2nd Battalion's process. The reasons for the score are that there is no monitoring conducted by the battalion and no inclusion of a Contracting Officer.

21. Phase 11 - Incorporate the Equipment into the Force (Item 30)

Table 2; Item 30 addresses the element of an acceptance inspection using the written revised requirements. The score indicates that 2nd Battalion has a similar element but does not achieve the same result.

The detachments usually conduct some type of acceptance inspection, but without the written revised requirements it is surely a difficult task to determine if the item fulfills the outwardly identifiable requirements. Again, without written revised requirements and having uninformed detachment members conduct the acceptance inspection, the chances increase that the item will not be satisfactory and a return of the item is delayed until a detachment member with the correct memorized requirements inspects the defective item.

22. Phase 11 - Incorporate the Equipment into the Force (Item 31)

Table 2, Item 31 addresses the element of a field test using written revised requirements. The score assigned indicates that 2nd Battalion's element does not achieve a similar result.

Field tests are done, but it is unclear to the researcher if the field tests are thorough and incorporate the detachments' revised requirements. If the detachments do not conduct a thorough field test or the revised requirements are not memorized correctly, latent defects could remain undetected, which could put the detachment in jeopardy during the mission and cause grave dissatisfaction. Also, it is evident that feedback from the field tests is often not provided to the S4, which allows faults with an item to remain unknown to the entire acquisition chain. Without this knowledge, the acquisition chain could inadvertently authorize a different detachment to procure the same faulty item.

23. Phase 11 - Incorporate the Equipment into the Force (Items 32 & 33)

Table 2, Items 32 and 33 address the elements of having a Contracting Officer handle the problems discovered from the field test and integrating a problem-free item, with a useful life-tracking plan, into the rest of the battalion. The score assigned reflects

that the battalion does not include a Contracting Officer, does not usually schedule a battalion wide train-the-trainer integration plan, nor do the detachments or battalion establish a useful life tracking plan. By not including a Contracting Officer the battalion cannot utilize his business skills and authority to rectify a problem. Without a train-the-trainer or similar plan, elements of the battalion will be unaware of the purchased item's capabilities and may unknowing request a similar item that is inferior. Without a useful-life tracking plan, the detachment may not accurately forecast the funds for when a replacement item is needed.

24. Phase 12 - Execute the Equipment Disposal Plan (Item 34)

Table 2, Item 34 addresses the element of executing the replacement/disposal plan base on the useful-life tracking plan. The score assigned reflects that the battalion does not establish a useful-life tracking plan; therefore it is difficult to execute a forward thinking equipment replacement/disposal plan.

C. CHAPTER SUMMARY

From the comparison of 2nd Battalion's acquisition process with the elements of the 12-Phases, these missing elements and problems are evident in 2nd Battalion's process:

- A consolidated list of all available equipment assets is not provided throughout the battalion
- There is no stand-alone needs statement and the needs may often be stated incorrectly
- Requirements are not correctly stated, written, and shared outside the Bteam
- A Contracting Officer is not included in any of the battalion's elements
- A thorough Acquisition Plan is not created to address risks, establish a
 formalized test and evaluation plan for the items and sources, include
 extended IPTs, and to develop a useful life tracking and
 replacement/disposal plan

- The DA 3953 Form and ULLS are used infrequently if not at all, which can prevent economic purchase quantities from being realized
- Requirements flow is suspect and paper handoffs are prevalent
- Feedback is lacking throughout the process

These missing elements and prominent problems can cause the battalion to fall short in achieving its acquisition goals of providing a best-price or best-value solution, minimum delays, and satisfaction to the detachments.

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V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The 12-Phase Acquisition Process provides key elements (e.g. actions, analyses, events) that an equipment user and Contracting Officer must be aware of, participate in or be responsible for throughout the cycle of a single acquisition. This cycle begins with the detachment's Mission Analysis and ends with the replacement and disposal of the used item. The elements of the 12-Phases are derived primarily from the Federal Acquisition Regulation (FAR) Chapters 7, 12, and 13, Department of Defense DOD 5000.2R, 2nd Battalion's Field Standard Operation Procedures (FSOP), United States Army Special Forces Command's Acquisition Handbook and the United States Army Special Operations Command's Logistics Handbook.

A model and summary of the habitual activities that occur in 2nd Battalion's acquisition process is provided in Chapter III. This process (the practice) is compared to the 12-Phases (the theory) and in Chapter IV eight problems and shortfalls are identified with 2nd Battalion's acquisition process. The problems and their implications follow.

A consolidated list of all available equipment assets is not provided throughout the battalion. Without a consolidated list, which should include the weight, range, battery usage, and other important mission characteristics and capabilities, detachments cannot efficiently war game their equipment against the enemy's equipment, tactics and training. Additionally, without a consolidated list, members of the battalion may be unaware that the battalion possesses an equipment item that fulfills the need. Without this knowledge,

these members may use their funds pointlessly to purchase a commercial item (CI) or nondevelopmental item (NDI) to fulfill the need.

There is no stand-alone mission needs statement (MNS) and the needs are often stated incorrectly. Without a stand-alone MNS, the individual validating the need must sift through the reams of poster paper analysis from the detachment's Mission Analysis. This process takes more time than reviewing a stand-alone document. With incorrectly stated needs, the detachment may not consider a non-material solution or an asset available to the battalion to solve the need. The result is the detachment may use its funds needlessly to purchase a commercial item (CI) or nondevelopmental item (NDI) to fulfill the need. Additionally, incorrectly stated needs lead to incorrectly stated requirements that stall the acquisition process and limit the best-price or best-value choices.

Requirements are not correctly stated, written, and shared outside the B-team. Without widely distributed and correctly written requirements, Market Research for a CI and NDI is limited and a best-price or best-value solution may not emerge.

A Contracting Officer is not included in any of the battalion's elements. Without a Contracting Officer, the battalion does not benefit from his business knowledge, contacts, extensive Market Research tools and negotiation skills. These benefits can provide a better-price or value item, with less delays, than the battalion is now experiencing.

The Acquisition Plan established does not address risks, establish a formalized test and evaluation plan for the items and sources, include extended IPTs, and develop a

useful life tracking and replacement/disposal plan. Without a thorough Acquisition Plan, the battalion exposes itself to risks that can delay the acquisition and increases the chance that a faulty product is delivered to the detachments.

The DA 3953 Form and ULLS purchase methods are used infrequently, which discounts the economic purchase quantities they can provide. By not attaining economic quantities, the battalion uses more funds to by less equipment items, which is not a best-price or best-value.

Requirements flow is suspect and paper handoffs are prevalent. Since, requirements are not written, they must be memorized by the detachment in Phase 4 and restated accurately for follow on activities (e.g., during Market Research, solicitation, award of a contract, field testing). An increase opportunity exists that the requirements will inadvertently change during this flow and this can lead to acquiring an item that does not fulfill the need. Additionally, with the numerous paper handoffs involved with the Exhibit 6 Form, there is an increased chance that delays will occur from the form sitting in someone's inbox or being lost.

Feedback is lacking throughout the process. Without feedback the acquisition chain has no idea if it is providing a quality product that satisfies the need and the detachments.

B. RECOMMENDATIONS

1. Consolidated List

2nd Battalion should compose a consolidated list of all available equipment assets and distribute that list thorough the battalion. To compose this list, the S4 should focus on these organizational components: people, tasks, and technologies.

The S4 should assemble an IPT of individuals who manage the assets within the battalion and within the organizations that support the battalion. The S4 then tasks the IPT to provide a list of mission equipment items that they manage along with the range, battery use, weight, and other pertinent capabilities and characteristics of the items. The S4 has these lists sent to him by email, scrubs the lists, consolidates them, and then posts the consolidated list on the battalion's large area network (LAN).

The results are that the detachments can access the list during Mission Analysis to quickly evaluate their available equipment assets against the enemy's. The Detachment and Company Commanders are also able to use the list to solve a need without having to resort to a procurement of a new equipment item.

These results minimize the delays of war-gaming and possible provide a no cost (which is a best-price) solution for the need.

2. Stand-Alone Needs Statement

2nd Battalion should incorporate a stand-alone mission needs statement (MNS) to consolidate all the analyses that a detachment completes during its Mission Analysis. To integrate a MNS into the battalion's process, the S4 should focus on these organizational components: people and tasks.

The S4 should learn how to state a need from a Contracting Officer at the Fort Lewis DOC (253) 966-3490. The S4 then assembles the supply representatives from each detachment and conducts a train-the-trainer class on how to consolidate the information from the poster paper analysis, use a succinct MNS (see Appendix A), and how to correctly state the need in terms of mission, objectives and general capabilities.

The results are that a correctly written MNS helps ensure that all factors surrounding a need are thoroughly considered and that a non-valid need does not initiate a superfluous CI or NDI equipment item acquisition, which wastes the time and funds of those in the acquisition chain.

3. Requirements

The battalion should ensure that the detachments correctly define, write, include information from their RFIs and submit their requirements when they request an equipment item. In order to achieve this standard for requirements, the S4 should focus on these organizational components: people, tasks, and processes.

The S4 should recruit the help of a Contracting Officer to provide classes and material to the detachments on how to correctly define and describe their requirements. The S4 then establishes a new process where the detachments list their equipment requirements on the Exhibit 6 Form, DA 3953 Form, or the ULLS memorandum for a purchase.

The results are that these correctly written requirements: eliminate the detachments' need to memorize the requirements; help broaden the preliminary Market Research for an item; help eliminate specificity, "gold plating", and unique requirements; provide the Company Commander and B-team an easier method to evaluate the equipment sought; and help the Supply Sergeant, S4 and a Contracting Officer to perform detailed Market Research¹¹, and, if needed, solicitations.

¹¹ See Appendix C for a listing of useful Market Research web sites and contact information to help expedite a detailed search.

Correctly written requirements also help provide maximum competition, and quicker, more accurate, responses from sources, which helps procure a best-price or best-value item with minimal delays.

4. Inclusion of a Contracting Officer

The battalion should include a Contracting Officer by Phase 4 in order to capitalize on his unique business experience, skills, and resources. To merge a Contracting Officer into the battalion, the S4 should focuses on these organizational components: people and process.

The S4 should call a Contracting Officer from the Fort Lewis DOC and integrate him into the battalion's Working Integrated Product Team (WIPT) when the requirements are being established for the new equipment item. The Contracting Officer then merges the requirements with his business knowledge and uses his commercial and Government contacts, conducts detailed Market Research with his extensive tools, and uses Government databases to find solutions. The Contracting Officer also negotiates and awards a contract that best benefits 2nd Battalion.

The results are a more expedient and complete Market Research (especially for NDIs), more competition, and a better search for economic purchase quantities. Also, a more thorough evaluation of CIs and NDIs and their sources is completed. All of this helps procure a best-price or best-value item with minimal delays.

5. Acquisition Plan

2nd Battalion should include an Acquisition Plan for each significant purchase. To integrate an Acquisition Plan, the S4 should focus on these organizational components: people and tasks.

The S4 should coordinate with the detachment and a Contracting Officer to establish a comprehensive plan for fulfilling the detachment's need in a timely manner and at a reasonable cost in the level of effort and resources needed to implement the plan. The Acquisition Plan is structured as an operations order and includes the who, what, where, when and why for the sample item's test and evaluation, milestone decisions, solicitation, award of the contract, field testing of the purchased item, modifications, equipment integration plan, useful-life tracking plan, and the equipment disposal/replacement plan. In addition, formal feedback loops are established so that future purchases of that item are encourage or avoided depending on the results of the tests and evaluations.

The Acquisition Plan is the ultimate tool to efficiently schedule the proper resources and personnel for an expedient acquisition that provides a best-price or best-value solution.

6. Appropriate Purchase Method

2nd Battalion should use an appropriate purchase method to achieve economic purchase quantities. To determine which method is appropriate and then utilize this method, the S4 should focus on these organizational components: tasks and process.

After the written requirements are distributed throughout the acquisition chain (to include a Contracting Officer) and the results from the detailed Market Research are available, the S4 determines which purchasing method provides an economic quantity. If the total requirements in the battalion for the item are less than \$2,500 then the GCPC is used. If the amount is over \$2,500 then the DA3953 Form or ULLS is used depending on whether the item is a CI or NDI.

The result of using the appropriate purchasing method is an expedient delivery of an economic purchase quantity. This allows the detachments to either save some of their funds or buy more of the equipment item.

7. Requirements Flow and Process Innovation

2nd Battalion should utilize the same written requirements throughout its acquisition process and automate the process when possible. To accomplish this requirements flow and process innovation, the S4 should focus on these organizational components: tasks, people, process, and technology.

With the previous recommendations implemented: a consolidated list of assets available to the battalion is posted on the LAN; needs are recorded on a MNS; the detachments are providing written requirements and an acquisition plan; a Contracting Officer is included into the WIPT; the requirements should now be better integrated and electronically submitted to ensure proper flow and timely execution.

The S4 should develop an electronic template for the MNS. After a detachment completes the MNS and determines that a non-material solution or assets available to the battalion does not suffice, it sends the MNS via email to the Company Commander. The Company Commander validates the need and emails the MNS to the S4 to inform him that the detachment will be developing requirements for the need. The S4 coordinates with a Contracting Officer and both assist with the detachment's requirements phase.

Once the requirements are established they are emailed to the other detachments in the battalion to generate interest and possibly more demand for the item. While detail Market Research is conducted at the battalion and the DOC (e.g., catalogs, Internet sites, Government databases), the requirements are sent via the Procurement Desktop II to

commercial sources and emailed to Federal sources. The electronic requirements contain a deadline for a response and the responses are consolidated to determine a best-price or best-value economic purchase quantity.

Electronic templates for an Exhibit 6 Form, DA3953 Form, or ULLS memorandum are sent to the appropriate purchasing agent (e.g. S4, RMO/Contracting Officer, Supply Sergeant) and the acquisition is executed for a sample item and, after testing, the entire order.

An electronic feedback form is filled out by the testing detachment and posted on the LAN for future acquisition decisions.

The results are a streamlined acquisition process flow that remains paperless¹², an expeditious and thorough Market Research for an item (a CI, NDI, or an asset available to the battalion), a best-price or best-value solution identified, an item quickly evaluated and delivered, and detachments retaining their autonomy and flexibility to test and approve the item.

8. Feedback Loops

The battalion should establish, as a minimum, three formalized feedback loops. In order institute these feedback loops, the S4 should focus on these organizational components: people, process, and technology.

The first feedback loop is the S4 emailing a detachment's requirements to other detachments and their response in the form of an increase in the demand for an item.

¹² If an electronic Exhibit 6 Form is used, the S4 must make a paper copy to attach the item's receipt for inspection by the DOC.

The second feedback loop is the detachment emailing the written requirements to the S4 and a Contracting Officer and their response in the form of detailed Market Research answers.

The final feedback loop is the detachment's emailing of the field test results to the S4 and the S4 posting the results on the LAN for the battalion to view.

The results of these feedback loops are an increased opportunity to attain economic quantities, more solution choices for the detachments, and better information for the battalion to conduct future Mission Analysis and acquisitions.

C. ANSWERS TO RESEARCH QUESTIONS

1. Primary Question

How can *The 12-Phase Acquisition Process* improve 2nd Battalion, 1st Special Forces Group's acquisition process?

By incorporating the elements from each phase of the 12-Phase process, 2nd Battalion can achieve a better price or better value item, minimize its acquisition delays and satisfy the detachments with the product and acquisition process.

2. Subsidiary Questions

• What advantages and disadvantages are associated with *The 12 Phase Acquisition Process*?

The 12-Phases have 22 prominent elements associated with acquiring a best-price or best-value equipment item and 16 elements addressing the minimization of delays and providing satisfaction with the product and process. Combined, these 38 elements are the advantages of using a 12-Phase process for SAP procurements.

The disadvantages are that the 12-Phases initially take more time to plan, more resources to execute, and more coordination than 2nd Battalion may be willing to commit for an acquisition under the SAP. This expenditure of resources for the 12-Phases could detract from the core competencies of 2nd Battalion. Also, the 12-Phases require dedicated IPT members to conduct significant coordination and work. This may not always be achievable within the context of 2nd Battalion's busy workweek.

• What is 2nd Battalion, 1st Special Forces Group's acquisition process for commercial and nondevelopmental items?

2nd Battalion's distributes its funds to the company and detachment level and couples this with a decentralized need, requirements, and equipment selection approach. This allows the detachments and Company Commanders great flexibility and autonomy to decide how much to spend and what type of equipment item is right for the detachment. Most of the major elements (e.g., actions, analyses, events) are conducted at the company and detachment level with very little input from or feedback to the rest of its acquisition chain.

• What problems and shortcomings are associated with 2nd Battalion's acquisition process?

There are eight significant problems and shortcomings identified in the battalion's process. These ranged from not having a consolidated list of available equipment assets to a lack of feedback.

• How can the elements of *The 12-Phase Acquisition Process* be used to improve 2nd Battalion's acquisition process?

By integrating the needed elements from the 38 elements listed in Chapter II, 2nd Battalion can provide best-price or best-value procurements, minimize its acquisition delays and provide a satisfying process and product to the detachments.

D. RECOMMENDATIONS FOR FURTHER STUDY

With the advent of the Federal Acquisition Streamlining Act of 1994 (Public Law 103-355) there has been a widespread availability and use of the Governmentwide commercial purchase card (GCPC). These cards can purchase the same supplies and services many times over as long as the purchaser can show that a requirement was not "split" to accommodate the \$2,500 threshold of the card. There is a high probability that Federal organizations keep requirements separate to enjoy the expediency and ease of use of the GCPC, rather than consolidate the requirements and utilize a purchase method that is perceived as more cumbersome. These "cumbersome" methods, however, can provide economic quantities.

A study can be conducted using an organization's Exhibit 6 Forms and receipts to determine the savings that can be attained from consolidating like requests, gaining economic purchase quantities and utilizing a different purchase method. This would provide insight to the tradeoff between the GCPC's streamlining value and its economic value.

APPENDIX A. USSOCOM MNS

USSOCOM DIRECTIVE 70-2 App D

MISSION NEED STATEMENT (FORMAT)

MISSION NEED STATEMENT FOR: Mission Area/Operational Capability
Need

- 1. <u>Defense Planning Guidance Element</u>. Identify the major program planning objective or section of the Defense Planning Guidance and/or USSOCOM Strategic or Supplemental Guidance (SPG) to which this need responds. Also, reference DoD, Military Department long-range investment plans, if applicable.
- 2. <u>Mission and threat Analyses</u>. Identify and describe the mission need or deficiency. Define the need in terms of mission, objectives, and general capabilities. <u>Do not</u> discuss the need in terms of equipment or system-specific performance characteristics. Discuss the Defense Intelligence Agency (DIA)-validated threat to be countered as well as the projected threat environment and the shortfalls of existing capabilities or systems in meeting these threats. Comment on the timing of the need and the general priority of this need relative to others in this mission area.
- 3. <u>Non-material Alternatives</u>. Discuss the results of the mission area analysis. Discuss the need in terms of the latest USSOCOM Prioritized Required Capabilities List (P-RCL). Identify any changes in U.S. or Allied, abbreviator SOF doctrine, operational concepts, tactics, organization, and training that were considered in the context of satisfying the deficiency. Describe why such changes were judged to be inadequate.
- 4. <u>Potential Materiel Alternatives</u>. Identify known systems of programs addressing similar need that are deployed or are in development or production by any of the Services or Allied nations. Discuss the potential for inter-Service or Allied cooperation. Indicate potential areas of study for concept exploration/definition including the use of existing U.S. or Allied military or commercial systems or product improvements or existing systems. <u>Do not evaluate alternatives</u>.
- 5. <u>Constraints</u>. Describe, as applicable, key boundary conditions related to infrastructure support that may impact on satisfying the need: logistics support; transportation; mapping, charting, and geodesy support; manpower, intelligence interfaces; security; and standardization or interoperability within the North Atlantic

Treaty Organization (NATO) or with other allies of DoD Components. Address the operational environments (including conventional; initial nuclear weapon effects; nuclear, biological, and chemical contamination (NBCC); electronic; and natural) in which the mission is expected to be accomplished. Define the level of desired mission capability in these environments.

6. <u>Joint Potential Designator</u>. Indicate the Joint Potential Designator established through the validation process.

APPENDIX B. QUESTIONNAIRE

- 1. Analysis of the Mission:
- -How often does the battalion conduct a Mission Analysis (MA)? Does the MA identify the detachments' and battalion's operational and support tasks needed to achieve their military objectives?
- -Are enemy tactics and equipment assessed during the MA? Is the battalion actively seeking answers to information gaps on the enemy's capabilities? Once this information is found, how is it disseminated? Does the battalion assess its tactics, training and equipment against the enemy's?
- -Are environmental factors (weather, terrain, light conditions, vegetation, etc.) assessed in the MA?
- -When conducting a MA who is present? What are their roles and how are their functions critical to the assessment?
- -What products/documents are generated from the MA? What action is taken with these products/documents (Are they submitted to higher HQs? Are the results of the MA dissemination throughout the battalion)? Is there a feedback loop from the dissemination of the MA results?

Are the products generated from the MA logged and tracked for a response from higher HQs?

What are other sources, besides the MA, that offer information on the detachments' and battalion's operational & support tasks, capabilities (enemy and friendly) and operational environment? How is this information handled and what products are generated?

- 2. Determine needs, capabilities or opportunities
- -Are needs identified, documented, validated and reviewed periodically to determine if they are still valid?
- -What recently identified needs were satisfied with nonmaterial solutions (i.e. changing the battalion's or teams' tactics, training or techniques)?
- -What recently identified needs have or will establish a new operational capability?
- -What recently identified needs have or will improve an existing capability?

- -What recently identified needs have or will exploit an opportunity to reduce cost or enhance performance?
- -When a material solution was sought, what consideration was given to the most cost-effective solution over the system's life (i.e. life cycle cost)?
- -Does the battalion generate a Mission Need Statement (MNS)? Who writes it? What format is used? Where is it submitted? How is it tracked? Is a Statement of Requirements (SOR) the battalions substituted for the MNS? When are SORs generated (i.e. at quarterly Equipment Review Boards)? How are these SORs updated and tracked?

3. Determined the requirements for this equipment

- -Is a System Requirements Analysis conducted? Who is present for this analysis? Are requirements performance based or specification based? How much emphasis is placed on the item/system's compatibility with the battalion's or Army's current systems?
- -How is market research conducted for potential sources and items? Who does the market research? What market research tools are used? Is market research used to determine:
 - 1. The level of market competition
 - 2. Laws and regulations unique to the industry sector or item
 - 3. Size & status of potential sources
 - 4. Distribution & support capabilities of suppliers
 - 5. Customizing & modifying practices of the suppliers
 - 6. Warranties, maintenance, marking, packaging, discounts
 - 7. Reliability of product
 - 8. Prices

What contacts within DOD, other Federal Departments/Agencies and industry are called upon to assist with the market research?

-Is the battalion cultivating its acquisition specialist (S4) to become a better market researcher through:

- 1. Providing assets to establish, modify, or upgrade technical libraries?
- 2. Promoting active participation in professional societies (like Team Tiger meetings)?
- 3. Allowing subscriptions to on line market research services?
- 4. Promoting attendance at technical/marketing symposia (trade shows)?
- 5. Providing assets for professional schooling (attendance or distant learning) at the Defense Acquisition University, Army Logistics Management College, or other institutions that would provide procurement insight?
- -Is the GCPC the primary avenue for the battalion to acquire commercial items? Are there any functional shortcomings in the training and execution of the battalion's purchase card program? What improvements could strengthen this program?
- -Are commercial and nondevelopmental items (NDI) sought for each acquisition? Are set asides and mandatory sources given first priority?
- -Did the battalion acquisition specialist check with other units or agencies to determine if they were working on similar requirements? If so, were joint ventures considered?
- 4. Defined and described these requirements
- -Does the battalion's acquisition specialist present the information gained from the System Requirements Analysis in a way that defines and describes the user's needs in terminology that the market can understand?
- -Are requirements often stated in terms of functions to be performed (what the item is suppose to do) or in performance required (how well the item must perform)?
- -Are requirements often stated in essential physical characteristics (must meet Milspecs, must be constructed out of stainless steel, etc.)?
- -Is an Integrated Analysis of Alternatives conducted?
- -Are unique requirements challenged by the acquisition specialist to maintain the potential for a commercial item solution?
- -With an Operational Requirement Document (ORD) in the hand of the acquisition specialist, who determines whether to proceed with the acquisition? What management reviews or guidance is given? Are funds committed (earmarked) at this time (a Program Budget Decision)? If funds are unavailable at the battalion level what happens with this requirement document (Unforecasted Fund Request)?

5. Plan the equipment acquisition

- -For each equipment acquisition of significance, is a management strategy developed that establishes, utilizes and guides Integrated Product Teams (IPT)?
- -Is an Integrated Product Team established that: identifies critical product test issues; plans a Development and Operational Test & Evaluation (DOT&E); plans a production qualification test & evaluation and plans a live fire test & evaluation?
- -Is an acquisition plan developed that timelines the acquisition process to include Phases, Milestones and program baselines?
- -Are Integrated Processes & Product Development actions taken to include Quality Management, Supportability Analyses (support concepts and resources)?
- -Is a reliability, maintainability and availability analysis along with a system safety & health analysis completed?
- -Did the battalion conduct human system integration, determine C3I interoperability requirements, plan for system security, and establish and implement a configuration management?
- -Did the battalion develop a demilitarization and disposal plan? Are provisions made (to include capital investments) to support this plan? Instead of a disposal plan, did the battalion develop a refurbishing or alternate utilization plan?
- -Do the acquisition decision makers and SF teams review the Market Research? Is the choice of a Commercial Item vs. NDI reviewed? Are the acquisition sources reviewed for reliability? Have dual use technologies been considered? Are recurring requirements examined? Is the Life Cycle Cost Estimate updated? Has Cost as an Independent Variable (CAIV) been addresses (cost performance tradeoffs)?
- -If the acquisition item has been developed or procured by a different unit or Government Agency's contract and the contract is still open, does the S4 have the skills to find that open contract and "piggy back" off of it?
- -Did the S4 establish exit criteria and a risk management strategy for the acquisition?

6. Structure its solicitation

- -Does the S4 know the basic elements of a legally binding contract (mutual assent, consideration, etc.)?
- -Is the S4 aware of the minimum number of sources that must be solicited depending on the estimated value of the procurement?

- -Is the S4 aware of the point that he must hand off the solicitation responsibilities to a warranted contract officer either at the Directorate of Contracting (DOC) or at USASFC?
- -Does the S4 understand the reasons for full and open competition and how, if needed, to justify other than full and open competition (i.e. a Sole Source Memorandum)? Does the S4 understand best value?
- -Does the S4 provide the DOC or the USASFC contract officer with cost, schedule and performance measurements to assist the contract officer with structuring the solicitation?
- -How does S4 help the Contracting officer with: preparing an invitation for bid (IFB); preparing a request for proposal (RFP); planning source selection; helping with the presolicitation conference and helping amend or cancel the solicitation?
- -Is the use of Government property (training sites, ranges, etc.) ever considered when structuring the solicitation?
- -What streamlining techniques are incorporated in the solicitation?
 - 7. Evaluate the sources for new equipment
- -If the procurement is not a micro-purchase, how does the S4 and Integrated Product Teams evaluate the past performance of the sources to ensure the item will be delivered on time and will meet all the requirements in the ORD?
- -During the evaluation of bids or proposals (for items over the micro-purchase level), what role does the S4 and Integrated Product Teams play in evaluating the technical proposals; price evaluations; terms & conditions; preaward surveys and past performance of the sources?
- -If numerous sources respond to the IFB or RFP, how are their products compared (i.e. price bases, quality bases, durability bases, service bases, delivery bases, etc.) and what role does the S4 here? Are life cycle costs considered? Are training/familiarization costs considered?

8. Negotiate with the sources

-For procurements passed off to the DOC, does the S4 have any role in: conducting written or oral discussions; proposal revisions; price negotiations; establishing prenegotiation objectives; developing a negotiation strategy; or documenting negotiation decisions?

9. Award a contract

-For none micro-purchases that involved testing of various suppliers' equipment, how does the S4 help award the contract; debrief unsuccessful offerors; handle the return of equipment and respond to any protests?

10. Administer the contract

- -What role does or can the acquisition specialist play in implementing contract progress payments; exercising contract options; and assisting with change orders?
- -How are deliverables tracked from the supplier, received at Fort Lewis, delivered to the battalion, logged, added to the property books and supplied to the teams?
- -Where in the above is an inspection and acceptance of the deliverables conducted to ensure their quality?
- -Are these deliverables put through the Test & Evaluation program that was planned during step 5 (Plan the equipment acquisition)?

11. Incorporate the equipment into the force

- -Are operational and support plans, to include transition from the contractor to inhouse support (if appropriate) executed? What types of operational plans (training plans) were used (i.e. train the trainer)? Were the IPTs incorporated into the training plan? Was enough time scheduled with the operations shop (S3) to ensure all trained individuals became proficient with the new equipment?
- -What operational and support problems were identified? Was an effective feedback loop to the acquisition specialist established for these problems?
- -Were system deficiencies discovered during DOT&E and final operational test & evaluation verified and resolved?
 - -Were C4ISR support requirements updated?

12. Plan for disposal of the equipment

- -What tracking provisions were emplaced to determine the usage and the remaining life of the item?
- -Were the provisions made in step 5 of the Acquisition Process Outline, the proper disposal of the item, executed as planned?
- -Was a replacement program initiated in a timely manner so that the replacements were on hand prior to the end of an item's useful life?

-What was the process to remove items from the user and the property books? Were there any problems with this process?

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APPENDIX C. USEFUL MARKET RESEARCH WEB SITES AND CONTACT INFORMATION

Web Sites:

Advanced Research Projects Agency Armaments & Chemical Acquisition

Army Research Laboratory Army Technical Screening ASOCNet (USASFC G4 & G7)

Aviation and Missile Command, Redstone Arsenal

Community of Science

Defense Advanced Research Projects Agency Defense Logistics Information Service Defense Reutilization and Marketing Service

Defense Supply Center Columbus
Defense Supply Center Philadelphia
Defense Supply Center Richmond

Defense Technical Information Center

DLA Product Testing Center

DoD Emall DSCC Site Search Electronic Mall (E-Mall)

General & Industrial Directorate Product Line General Weapons System Information

GSA Advantage-On-line shopping catalogue I-Mart (Internet Market Research)

National Institute of Standards and Technology

National Stock Number Search National Technology Transfer Center Naval Research Laboratory Naval Sea Systems Command

Shelf-Life Home Page Soldier Systems Command Supply Assist Request VIA Web Universal Directory of Commercial Items

War Fighters Clothing Support Page

http://www.arpa.mil

http://www-acalal.ria.army.mil

http://info.arl.armv.mil

http://logtool.1touch.navy:mil/logtool/army_navigation/body_technical.html

https://asociweb.soc.mil

http://www.redstone.army.mil

http://medoc.gdb.org/best/fed-fund.html

http://www.darpa.mil/

http://www.dlis.dla.mil/prodweb.asp

http://www.drms.dla.mil http://www.dscc.dla.mil

http://www.dscp.dla.mil/orderit/ http://www.dscr.dla.mil/PC_9/

http://www.dtic.mil/

http://www.dscc.dla.mil/offices/testcenter/index.html

http://www.emall.dla.mil/

http://www.dscc.dla.mil/Search/index.html

http://www.emall.dla.mil

http://dscp103.dscp.dla.mil/gi/general/prodgrps.htm

http://www.janes.com

http://www.fss.gsa.gov/cgi-bin/advwel

http://www.imart.org

Gopher://gopher-server.nist.gov:7253

http://lrc3.monmouth.army.mil/aeps/nsndata/

http://iridium.nttc.edu/nttc.html

http:///nrl.navy.mil

http://www.navsea.navy.mil http://www.shelflife.hq.dla.mil

http://www-sscom.army.mil/index.html

http://www.dscp.dla.mil/gi/general/assists.htm

http://gidm.dlis.dla.mil/upc http://ct.dscp.dla.mil/Ascot/

Contacts:

Frank Kostka
Natick Soldier Center
U.S. Army SBCCOM
DSN 256-5257 COM 508-233-5257
Frank.Kostka@natick.army.mil

Gary S. Dixon
Deputy Chief of Staff
Acquisition and Contracting
USASFC, Ft. Bragg
DSN 432-5062

Michael J. Dove Contracting Officer Directorate of Contracting (DOC) Fort Lewis, WA COM (253) 966-3490 dovem@lewis.army.mil

Clint Meyers
B.E. Meyers & Co., Inc. (Night Optics)
17525 NE 67th Court
Redmond, WA 98052-4939
1-800-DARK-NITE (327-5648)
Office (425) 881-6648
Fax (425) 867-1759
www.bemeyers.com

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